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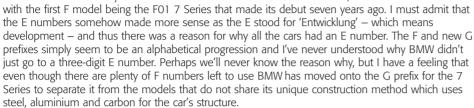






ts arrival has been imminent for some time, but BMW has finally pulled the wraps off its new 7 Series and it's clear that it's really pushed the boat out with its new flagship. The styling might be a little on the safe side but the new car is brimming with the latest technology and this extends all the way from the car's high-tech construction to the latest range of interior gadgets and driving assistance systems.

The new machine will go by the G11 moniker internally for the standard wheelbase version, while the long wheelbase model will be the G12. It's not all that long ago that BMW moved on from the 'E' numbering system that served it so well for 40 years to the 'F' numbers for all the current models,



From its clever construction (that saves up to 130 kilos over the previous generation Seven) to its opulent interior, BMW has really tried to push the boundaries with this car and while some of the items on the options list might appear to be a little off the wall the car's technology will no doubt filter down to the rest of the range in the years to come. I'm not fully convinced that I'd be particularly keen on having the Ambient Air package (that pipes a choice of eight different fragrances into the car) and I could also probably live without the Sky Lounge Panoramic glass roof (an LED encrusted sunroof that simulates a starry sky — in six different colours, of course) but I would be keen on having inductive charging for my phone. And then there's the intriguing semi-autonomous parking system where the driver can hop out of the car and use the key to guide the car into a garage or parking space. Okay, it's not quite up to James Bond levels of driving your 7 Series from outside the car but it's not all that far off either! Enjoy the issue.

Bob Harper, Editor



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What's coming down the BMW pipeline?

BMW's new model onslaught isn't about to let up anytime soon. Here's a peek at plans for the next few years...

Words: Shane O'Donoghue

Now that BMW die-hards have been introduced to the idea of front-wheel drive in the 2 Series Active Tourer, we can expect more models to use the same layout. First up is likely to be a new compact four-door saloon based on the Active Tourer mechanicals. It's expected to be badged the 1 Series Saloon and is also likely to sire a new compact estate to be called the 1 Series Touring. The full mix of petrol and diesel engines will be offered, alongside xDrive four-wheel drive. An insider regrettably confirms that any plans for a shelved. An M Performance vehicle in the vein of an M135i xDrive Saloon can't be ruled out, but a full-on M car will not be produced

At the other end of the BMW line-up, the firm is keen to launch a proper M division-developed version of the new 7 Series Saloon. Management at BMW is not best pleased at the dominance of the Mercedes-AMG S-Class variants in this upper end of the sector and aims to redress the balance It's not yet clear whether there would be a single M development of the 7 Series-badged M7 or a range of models, badged, for example, 740i M and 750i M. The twin-turbocharged V8 engine from the X5M and X6M is a likely powerplant. The highperformance 7 Series may be revealed during BMW's centenary year in 2016. BMW is expected to roll out a few special

projects to mark that occasion. Engineers working in the BMW i division are keen to develop a more powerful version of the i8 hybrid sports car. It's claimed that the carbon fibre structure can easily cope with an additional 300hp (the total system maximum output of the standard i8 is 362hp), but our sources say that additional power would not come from upgrades to the electric motors or battery pack. Instead, it's likely that the mid-mounted petrol engine would come in for attention. At present, it's a 1.5-litre three-cylinder unit producing 231hp, and suggestions are that this powerplant may be replaced by a larger one to achieve a total output of nigh on 450hp.

Insiders confirm that BMW management have

been keeping a close eye on the success of ultra-limited edition vehicles with matching price tags. It's possible that the high-performance i8 will go down that route, with bespoke carbon fibre bodywork to match its added grunt. However, BMW is adamant that no i car will be developed by or badged 'M'.

electric motor upgrades, BMW has confirmed that it is in talks with Panasonic and Samsung about future battery technology. It hopes to offer buyers of the i3 city car a choice of battery packs and, if the energy density improves enough in years to come, it would do away with the range extender engine option entirely. Currently the i3 has a quoted range of about 100 miles. If that was upped to 150 miles then BMW would consider

from BMW's i division will go into production in 2017 and we'll only see an advanced concept preview of it next year. Expect it to follow the spacious layout of the 5 Series Gran Turismo as BMW hopes to steal some of the thunder Tesla has garnered with its all-electric Model S. Until BMW has better battery technology at its disposal it's likely the i5 will start life as a plug-in hybrid, using the i8's powertrain and all-wheel drive.







Three out of three for BMW at Croft

The West Surrey Racing (WSR) trio of BMWs had a historic weekend at Croft during the fifth weekend of the British Touring Car Championship (BTCC) with a clean sweep in the weekend's three races. It was clear after qualifying that the BMWs were going to be at the sharp end of the grid with Sam Tordoff, Andy Priaulx and Rob Collard bagging first, second and fourth on the grid respectively.

Race one saw Priaulx nip past Tordoff for the win with Collard bagging third spot; seeing the BMWs cross the line in first, second and third was a great sight. Tordoff got his revenge in race two, taking the win ahead of the fast charging VWs of Plato and Turkington with Priaulx in fourth and Collard in sixth.

For race three it was Collard's turn to enjoy the view from the top step of the podium with Priaulx second and Tordoff sixth. It was a good upturn in fortune for the BMW contingent as while the cars have generally been qualifying well up until the Croft weekend they have struggled to bring home a set of good results.

As the series heads for Snetterton in early August Tordoff is fourth in the overall driver's standings with Collard eighth and Priaulx a point behind in ninth. Team WSR is currently third in the constructor's championship, having been docked points for exceeding the permitted number of engine changes for each of its cars.



Praise for BMW in JD Power study

BMW has had an excellent showing in the latest JD Power and Associates Initial Quality Study. Each year this study assesses the quality of new cars in North America, and in 2015 has a total of five awards lined-up for BMW. It is the first time BMW has topped three segments, namely with the 2 Series, the 4 Series and the 5 Series. In addition, the BMW plants in Rosslyn, South Africa, and Dingolfing, Germany, have been honoured for their high production quality.

As part of the Initial Quality Study, 84,000 North American new car buyers who registered their

vehicles between November 2014 and February 2015 were surveyed regarding any problems they experienced with their car in the first three months of ownership. This Initial Quality Study has been running for 29 years and allows new car buyers to respond to a comprehensive catalogue of questions on product concept and product quality, covering 233 points in total. In the Small Premium Cars segment, the new 2 Series came first by a clear margin, while the 4 Series won the Compact Premium Cars category with the 5 Series taking the crown in the Midsize Premium Cars segment.



BMW wins Engine of the Year

Four wins in the latest International Engine of the Year Awards plainly demonstrate the BMW Group's engine-building prowess. The drive unit in the BMW i8 earned two class wins as well as being declared overall winner, with a further class win being garnered by the engine of the M3 and M4.

The BMW i8 unit was voted class winner for its BMW TwinPower Turbo three-cylinder petrol engine, while the overall drive unit of the BMW i8 claimed a further class win as the best 'new engine'. Its combination of electric motor and petrol engine also earned it overall victory. In the 2.5 to 3.0-litre displacement category, the M TwinPower Turbo six-cylinder in-line petrol engine of the BMW M3 and BMW M4 came out on top.

The International Engine of the Year Awards were launched in 1999, since when 66 class and overall wins have gone to engines developed for BMW models. Each year an expert panel of judges, this time comprising 65 motoring journalists from 31 countries, selects the best engines in numerous categories.



Hot 435i for US buyers

100 lucky American buyers will be able to order a 435i ZHP Coupé Edition which offers a blend of performance and styling upgrades. Its specification includes a 'Track Handling Package' which includes 18-inch alloys, M Sport four-piston brakes, Adaptive M Suspension and Variable Sport Steering. The M Performance limited-slip differential is also part of the enhanced package along with a performance kit which offers a power and torque increase of 35hp and 32lb ft and the M Performance exhaust for a better sound. Externally it can be spotted by a carbon fibre M Performance front spoiler, splitter and carbon rear diffuser.





New colours on offer

One of the most popular colours on sportier BMWs will now be available on the BMW Z4 from July 2015. Estoril blue, a mainstay of M vehicles over the years, now comes to the twoseat roadster. At the same time as this colour's introduction, other hues will also be offered.

The new BMW Individual colours Champagne Quartz metallic and Smokey Topaz metallic will be available for all models of the 4 Series as well as for both body variants of the M4. In future, both the 5 Series Saloon and the 5 Series Gran Turismo can be spec'd in the BMW Individual exterior colour Tanzanite Blue metallic.

BMW's DTM disaster

BMW is struggling big time in this year's DTM championship after six of the 18 rounds, and so far there has been just one podium position between the eight BMW drivers – a third place for Bruno Spengler in the second race at the Norisring. Spengler is the best-placed driver (ninth in the championship) but the BMW teams currently occupy four out of the bottom five spots in the Team's championship and are last in the manufacturer's table - 147 points behind Mercedes-Benz and 195 behind Audi! Let's hope for a turnaround in fortunes in the second part of the season.

New engines arriving

July sees the introduction of new engines to a variety of BMW models, with the new B-class units finding their way into a variety of models in both three- and four-cylinder guises.

The three-cylinder units will now be fitted to the 118i three- and five-door versions of the 1 Series which brings them into line with other new BMW models such as the 2 Series Coupé and Active Tourer as well as the face-lifted 318i

At the same time the new 2.0-litre version of the four-cylinder diesel engine will find its way into the 218d and 225d versions of the 2 Series Coupé and Convertible as well as the 318d and 320d Gran Turismo models. It will also be fitted to the 420d Convertible, 418d Gran Coupé and the 25d versions of the X5. A new xDrive model will also join the UK line-up in the form of the 320d xDrive Gran Turismo. The new power units are more refined and offer improved outputs whilst seeing a reduction in fuel consumption and emissions outputs.



Special Z4 for Spa 24 Hours

At the end of July the 24-Hour race at Spa will be one of the most hotly contested endurance classics of the year, especially amongst the BMWs with no less than 11 Z4 GT3s due to take part. Perhaps the most intriguing and innovative entry, though, will come from Roal Motorsport with the driver line-up of Bruno Spengler, Timo Glock and Alex Zanardi.

While Zanardi has raced extensively with the Z4 over the last couple of seasons this will be the first time he has been paired with two ablebodied drivers and as a result Roal Motorsport in conjunction with BMW Motorsport has had to make a number of changes to the car. Modifications were made mainly in the following areas: pedal box; clutch and steering wheel. In addition, the engineers optimised the seat's position, installed air-con and found a new solution regarding the engine software. The pedalbox, for example, has been modified with a brake pedal for Zanardi on the right, a divider to the left of it and to the left of the divider a throttle and brake pedal for Spengler and Glock. The clutch pedal has been removed completely and is now operated from the steering wheel. Apart from the clutch setup the steering wheel for Spengler and Glock is the standard BMW Motorsport item but when Zanardi is in the car he uses one with a hand-operated throttle setup. The Spa 24 Hours takes place on 25/26 July... let's hope for a BMW win at the Z4's last European 24-Hour race as a factory machine.



Z4 GTLM sitting pretty in US

In the Tudor United SportsCar Championship BMW currently leads the manufacturer's standings by a couple of points from Chevrolet while drivers Dirk Werner and Bill Auberlen are tied at the top of the driver's championship with the Chevrolet pairing of Antonio Garcia and Jan Magnussen. In the team's title battle the number 25 Z4 is again tied with the Chevrolet on 157 points while the second BMW, the number 24, is in third spot.

The BMWs have strung several good finishes together and had the weather not intervened at the last round at Watkins Glen it's likely they would be leading all three championships. John Edwards unfortunately crashed the number 24 car while leading the event and the number 25 dropped from second to third in the closing stages of the event with an electrical fault. With six rounds still to go it's all to play for.









i8 makes hillclimb history

David Finlay recently became the first person to tackle the Shelsley Walsh hillclimb in a BMW hybrid. Here he recounts how he got on...

Photography: Rich Danby

"It's like this," I opened. "I want to compete in the British Leaders Hillclimb Championship, using a different car at every event. It would be rude not to ask if you want to become involved; how about it?"

"Great idea!" said BMW, much as I'd hoped for. "Would you like us to give you an i8?"

"That would be great!" came my reply.

Once the various formalities had been sorted out, I turned up at Shelsley Walsh, the oldest unaltered motorsport venue in the world, in a car whose technology would have seemed like something from another planet when the Midland Automobile Club started running events there back in 1905.

Even in 2015, it caused quite a stir and in some cases a certain amount of confusion. I had entered it in the 'Road-Going Series Production' category for which I thought it was eligible but the organisers shifted me into Class Z, for electric and hybrid cars, which I must admit I didn't know existed.

They were also very cautious about the safety aspects. At their pre-event briefing, the marshals were told that if car 225 stopped on the hill for any reason at all, they were not - regardless of the state of the poor bloke inside - to touch it, but to wait for the doctor's car, which would arrive carrying Shelsley's only pair of insulated gloves.

Spectators and fellow competitors loved the i8, and came up in droves to ask questions about the petrol-electric hybrid drivetrain. They were also puzzled at the lack of noise, in some cases asking if the engine was actually running. Of course it was (I'd selected Sport mode to make sure of this), but many of them simply couldn't hear it.

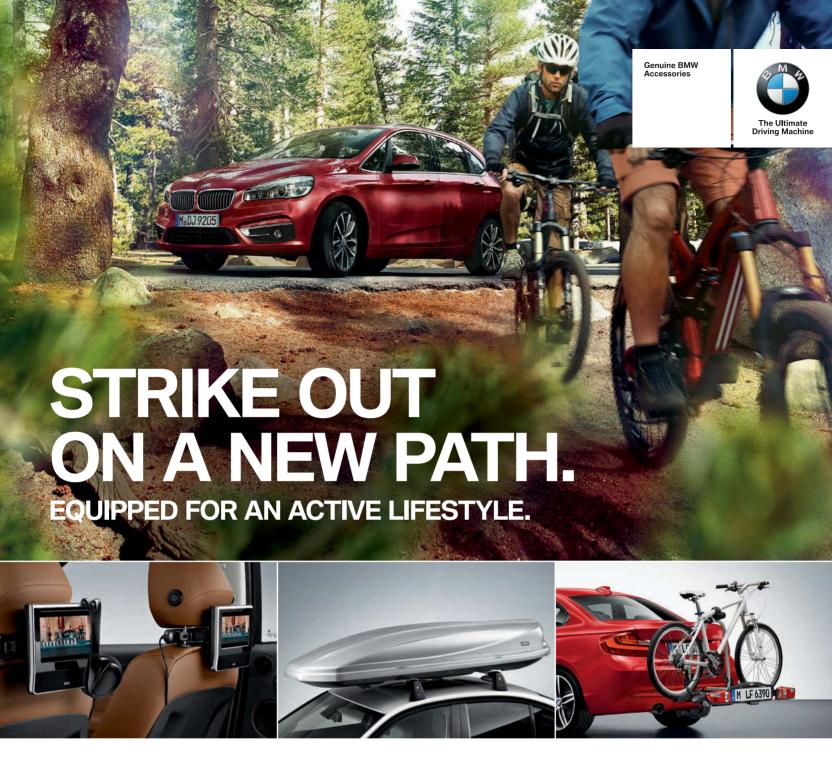
In one case, a friend and fellow competitor walked up the spectator's path to take a picture. He got his camera ready when he heard the commentator announce that I was on the start line but only realised he'd missed his photo opportunity when the i8 discreetly swished past him.

Despite the lack of sound effects, the car was impressively quick in a straight line. Through the corners it was handicapped by the standard tyres, which are relatively narrow and of a much harder compound than those used by most road-legal

Dynamic Stability Control made its presence felt several times on each run, but while I could have disabled it I felt it was probably intervening for a good reason and left it switched on rather than risk handing something i3-shaped back to BMW. On stickier rubber I would definitely have cancelled it.

My best run lasted for 35.27 seconds, which gave me the class win and a new record. Okay, nobody else was in Class Z that day, and nobody had ever entered it before, so making Shelsley history hadn't been difficult, but let's not dwell on that...

Many thanks must go to BMW for the use of the car, and to insurance company Primo for supporting the whole Multi-Car Hillclimb Challenge project. I must mention, too, our chosen charity - the Nationwide Association of Blood Bikes - to which you might chose to make a donation...



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BMW M Performance Drive Analyser

The official M Performance Drive Analyser from BMW allows you to monitor, analyse and even record key information and data directly from your car, from vital

statistics to acceleration times.

Developed especially for BMW, there are two parts to the product. The first is an OBD stick that simply plugs into the car's OBD port and can be left in place for the duration of use. It's a good looking thing with M Performance branding that emits a dull glow from the red part on top to let you know it's powered up and working. The second part of the analyser is the software app for your Apple or Android smartphone. This can be found on the appropriate app store by searching for M Performance Drive Analyser. It's free to download but won't work without the OBD stick. There's also an optional Click & Drive holder from BMW to attach your smartphone to the windscreen

for easy and legal use and viewing.

When you have both parts installed, it's a simple process to pair up to the OBD stick to your phone by following the on screen prompts and instructions. It uses Bluetooth to make the connection and once a pairing has been made, it remembers, so it can automatically pair itself each time from then on. Once paired, you will have full access to virtually everything the car itself is registering, plus plenty more. By selecting the different modes, the app is able to measure speed, engine power output, lateral acceleration, braking delay, gear selection, height above sea level, response start times, distance covered, CO₂ emissions, fuel consumption and several other vital engine readings such as inlet temperature, fuel pressure, air mass and battery voltage. Using these readings, further features such as the fuel consumption monitors allow you to cost an exact journey and working from the GPS the analyser can also accurately record acceleration times both off the line and in gear.

Information can also be used in conjunction with your phone's video function to record a lap of a race track, so data such as engine data, speed and peak values can be cross referenced. All results can be recorded and displayed afterwards in the form of video, audio or graphics.

Having tried it out first-hand on a couple of cars, it seems to pair up first time without problem and during the various testing sessions that lasted for several hours it never once dropped its connection either. The features on offer range from extremely useful, to very interesting, although some BMWs will have certain features already incorporated within the standard iDrive system, such as the power monitors.



Fuel Pressure Timing Advan-Catalyst Temp Voltage Speed OBD Engine Load (**RPM** Coolant Temp

{6}





Mass Air Flow Intake Air Tem Lambda Barometric pri Fuel Pressure Catalyst Temp Voltage





The selection of options is pretty impressive and there's plenty to play about with

But overall it's easy to use, useful and fun.

So are there any down sides to it? Some features only work if your phone has a GPS connection, so it does depend on the area a little, but this wasn't a problem on our test, even in the mountains of Wales. It's also a little annoying that it only works on BMWs built after 2011, although frustratingly, it lists older BMWs on the app but refuses to pair with them. Last of all is the price which at £306 isn't exactly cheap but it is an extremely clever and handy piece of kit. Its features obviously suit those keener drivers who like to make the most of their car on the road and perhaps the track, but having used it on several BMWs its always captivating to flick through the various features whatever the car. Price: £306

Contact: www.bmw.co.uk











(3)

Whilst it may not be that important to you, it is interesting to monitor the car's various readings



Gaz coilovers for F10 5 Series

Gaz, the suspension specialist based in Essex has released a Gaz Gold coilover suspension kit for the latest F10 5 Series. The conversion involves taking the original hubs and converting them to accept coilovers, thus the conversion can be carried out on all models in the F10 range. Ride height is adjustable through 60mm of travel and the height adjusters have a coarse Acme form thread for ease of adjustment. The damper units are black zinc plated to ensure that they remain in good order even after considerable service. Damper rates are also variable by means of an adjuster knob on the body and the Gold range comes with a gas cell in the reservoir filled with a high-viscosity index multi-grade oil to prevent cavitation and reduce fade under racing or track day conditions. All units are individually tested before leaving the factory and are covered by a two-vear warrantv.

Price: £1103.20

Contact: www.gazshocks.com



Powerflex bushes for E46 and Z4

Powerflex has just introduced new suspension bushes for the BMW E46 3 Series and E85/86 Z4 models. The new bushes integrate the caster offset found in Z4M vehicles to provide an additional 0.5 degree offset over the original concentric bushes. These new parts feature a low friction polyurethane inner bush, forming a bearing surface with the new CNC-machined aluminium outer shell, giving increased performance and limiting changes to the vehicles geometry. Testing during the development of this bush has indicated stiffness

gains of 128 per cent compared with the original rubber bush. For vehicles used in motorsport, or predominately on track, these new bushes are also available in the Black Series range, which is manufactured using a 95 Shore A compound that boasts 28 per cent increased stiffness over the Purple 80 Shore A 'street' material. Powerflex offers lifetime warranty on all bushes.

Price: £143.88

Contact: www.powerflex.co.uk or call

01895 460033



New Heritage Racing Apparel merchandise

The father and son duo behind the American brand Heritage Racing Apparel have been busy expanding their innovative range of retro merchandise. They have announced they will now be producing their iconic 1989 E30 M3 DTM illustration exclusively as a limited edition print, with just 500 copies available. The same image is also used for their new wall clock and can be ordered as a T-shirt as well. Visit the website for further information or to place an order.

Price: POA

Contact: www.etsy.com/shop/heritageracing





Autoglym super foaming shampoo

With summer show season very much here, the need to keep your pride and joy gleaming will be a priority and Autoglym's latest shampoo is an excellent addition to your arsenal in the fight against grime. The shampoo has a rich, foaming, pH neutral formulation that allows it to quickly break down dirt and contaminants from paintwork without stripping existing wax layers and has a rich, fruity fragrance. Price: 500ml £5.99, 1litre £7.99 Contact: www.autoglym.com



Thorney Motorsport race exhaust system for E9x M3

After four years of development, Thorney Motorsport has brought out its very own full exhaust system for the E9x M3 range, based on its M3 GT3 system. The system is made from T304 stainless steel throughout and is available as either a rear section, comprising a pair of silencers with four 85mm carbon tailpipes, a centre section with balance pipes or as a full system, which includes a pair of 100 cell sports cats. Also available are the hand-built Thorney Motorsport race manifolds, developed directly from the GT3 race car items, with longer primaries to increase torque and a wider bore for increased flow. All components of the system underwent extensive testing on road and race





conditions in order to ensure the highest possible quality along with the perfect fit, power and sound. Thorney says it's fine-tuned the system deliver the perfect V8 soundtrack, completely free of drone when cruising but suitably vicious at full throttle and high revs. As for power gains, the full system delivers an additional 18-20hp and 18lb ft of torque, while a custom remap will add another 10hp and 11lb ft. The manifolds add 10hp and 7lb ft of torque with no change in noise level.

Price: Rear section £1550, centre section with cats £1250, race manifolds £1800

Contact: www.thorney.ms or call 01280 850102

BMW LED door projectors

These new gadgets from BMW are the latest addition to its expanding official accessory range. The concept of these is simple and fun; it projects an illuminated image on to the ground as you open the door. It uses your existing door lights but changes the pattern it emits by placing a logo over the top of the specially designed holder. There's a choice of a BMW logo, M logo or xDrive logo to choose from and they are easily interchangeable. Price: £79.50

Contact: www.bmw.co.uk







The American performance specialist AWE Tuning has now launched a new high performance exhaust system for the latest incarnation of the 335i Saloon. Available as a rear section or full system, the 3-inch mandrel bent T304 stainless steel system features a straight-through design for optimum flow and using AWE's 180 Technology, cancels out certain problematic frequencies to eliminate drone, leaving you with just the sound you want to hear. It's finished with a pair of dualwalled tips available in Diamond black or Chrome silver in 90mm or 102mm diameter and AWE states gains of up to 15hp and 32lb ft with the full system, whilst it also guarantees a perfect fit and lifetime warranty.

Price: From £887 Contact: www.awe-tuning.com





Milltek Sport E39 M5 exhaust

It's nice to see that aftermarket exhaust manufacturer Milltek is still developing systems for older BMW models and this month, it has announced a new catback exhaust system. Made entirely from aircraftgrade T304 stainless steel, which brings with it a lifetime guarantee, the system is made up of three sections; a Y-piece to collect the gasses from each cylinder bank and two separate silencers, with 2.5inch piping and mandrel bends throughout to ensure optimum flow, finished with quad 90mm tips. For those looking to unleash yet more noise and power, Milltek offers optional high-flow sport cats, made by HJS in Germany and designed to fit perfectly with the rest of the system, though a stage two ECU remap is also required if you opt for these.

Price: £1246.80

Contact: www.millteksport.com or

call 01332 227 280





K&N panel filter for 3.0-litre diesel

The aftermarket air filter specialist, K&N, has just developed a new replacement panel filter to suit virtually all 3.0-litre diesel BMW models built in the last few years. It's available for all 3,4,5,6 and 7 Series models fitted with the 3.0-litre diesel dating from 2011 until now. The filter is a direct replacement for the original item and provides improved airflow over the original paper element. The K&N unit is also fully washable, meaning it has a lifetime warranty.

Price: £69.99

Contact: www.knfilters.co.uk

BMW LED door sill cover strips





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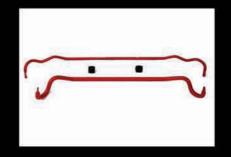
We do not settle for 'off-the-shelf' products and neither do our customers. If you want guaranteed, genuine bespoke performance upgrades for your BMW, speak to the experts at Birds. Engine, braking and other performance enhancements also available. Birds B-Series Dynamics Packages span 1, 2, 3, and 4 series variants.



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Long Live the King

The face-lift for the current 6 Series has arrived so we got behind the wheel of an M6 to see what the differences are like and if the model still holds the crown...

Words: Simon Holmes Photography: BMW

t's becoming harder to ignore that BMW's obligatory Life Cycle Impulse (LCI) updates, better known as a face-lift to those outside of hallowed BMW circles, are becoming less and less obvious of late. Sure, there is usually more going on beneath the surface but there was a time when it was relatively easy to tell the difference between a preand post-LCI model. That doesn't seem to be the case anymore, perhaps with the exception of the new 1 Series launched last month. But whilst the new One may have been treated to a firmer revamp, the LCI 6 Series that was released at the same time seems to have received minimal changes to say the least. Exterior alterations are limited to LED headlights, a revised kidney grille design that featured fewer bars, revised air intakes in the front bumper and side repeaters that have moved up into the wing mirrors. However, whilst that's all pretty subtle stuff, for the range-topping M6 model even those smaller changes have been largely omitted. Instead, the M car's grille

remains the same, the front air intakes haven't changed, nor have the side repeaters moved location. Only the headlights have been updated to the brighter LED design. Whether the changes have been kept to a minimum for technical reasons, such as cooling and aerodynamics, or to keep the elite group of current M6 owners happy is unclear, but either way the M6 is still a handsome beast.

It's a similar story on the inside, too. The new colour changing illuminated digital dials of the LCI haven't been carried over to the M6 either, and whilst the extended leather, beautifully stitched dashboard is a welcome addition to the normal 6 Series, the M6 already had that box ticked when it was new in 2012. The stylish gloss black finish on the trim around the centre console switches is new and there's also a chrome surround added to the central screen; these both add some contemporary style.

So aside from the minor changes, what does the LCI actually mean for a perspective M6 buyer then?

There are no mechanical changes for the standard M car but the big news is the power increase for the optional Competition Pack upgrade. This package was first released in 2013 and is available for all M5 and M6 models. With the £6500 upgrade, power is now pushed to 600hp with 516lb ft of torque to match, having previously been 575hp with 502lb ft, a standard M6 managing a 'paltry' 560hp. Don't go thinking that BMW has gone power crazy, though, as the extra 25 horses and 14lb ft of torque that come with the updated package were added largely to keep the cars in line with the rival Mercedes performance range. BMW did reveal that a whopping 40 per cent of M5 and M6 models have been ordered with the Competition Pack so far, so it will be a popular and no doubt welcome upgrade.

This LCI M6 Convertible test car we've come to drive on a sunny May afternoon in the Cotswolds isn't fitted with the Competition Pack power upgrade. That's not exactly a problem, though, as I've yet to









When changing up into third the engine unleashes its true potential... catapulting you down the road

	Convertible
ENGINE:	Twin-turbo, V8
CAPACITY:	4395cc
MAX POWER:	560hp
MAX TORQUE:	502lb ft
0-62MPH:	4.3 seconds
TOP SPEED:	155mph
ECONOMY:	27.4mpg
EMISSIONS:	154g/km
PRICE FROM:	£97,300



step out of an M6 with the conclusion it really needs more power. This example soon proves it is no different and as soon as the engine is started and I ease out into an empty country B-road, it's clear this M6 still makes do with its 560hp just fine. It gathers pace with immense strength, the torque spike arriving with a slight delay, yet still in an utterly controlled manner. Second gear is where it begins to really kick you forward, but the traction control is still fighting it; it's only when changing up into third the engine unleashes its true potential properly, catapulting you down the road at an obscene rate.

Fast it maybe, but, sadly, with the roof down, there's not actually what you would call a great soundtrack to match it. It emits a kind of angry yet mechanical tone that never really comes together in the orchestrated harmony you're hoping for. In fact, an M4 Convertible seems to have the better soundtrack as it sings its heart out at the upper echelons of its rev range. It's a bit of a shame the M6 isn't able to repeat that soundtrack as one of the joys of owning a performance convertible should be the sound, although with the roof up there's plenty of pleasing deep tones and subtle roars.

It doesn't matter whether the roof is up or down to distract your attention when it comes to the interior though. It has to be said that the cabin's look and feel

are bordering on the spectacular, even by BMW's standards. The LCI changes may have been small but that's because not a lot needed changing as the interior space has a supremely high quality feel and, mixed with the large amounts of glossy carbon fibre that adorn the dashboard and centre console, it gives a wonderfully special feel to the car. But then you would hope so for the £97,000 price tag.

A comprehensive package for an elite performance drop-top then, but there are other areas which aren't so rosy, at least on these UK roads. Over a particularly rough or bumpy road the M6 seems to exhibit signs of scuttle shake, in a strange and uneasy vibrating sensation felt through the steering wheel. It shows no signs of this on any other road, so it could perhaps be related to the huge tyre combination causing a little upset, but it's noticeable on the rare times it does display the trait nonetheless.

The ability of the standard steel brakes is also questionable if you like to truly exploit the car's immense pace. Having driven several current M5 and M6 models that always seem to have the optional carbon ceramic box ticked (just next to the £7395 price tag), in the office we've long wondered if they are really needed on the road. Well, after a long and spirited drive in this particular M6 that is fitted with steel brakes it seems we potentially have an answer.

Admittedly, the test wasn't too kind on the brakes as they tried desperately to shed some of that all-tooeasy to gain speed, but the brake pedal did begin to get noticeably softer with time. I certainly wouldn't want to push them any harder on a track, but then there are two things to consider here. First, the M6 Convertible is a heavy car and it's all too easy to forget how much weight it's trying to hide. There's a lot of it, and whilst the power helps to hide its vast mass well, the brakes highlight just how much the engine's immense power is working against the laws of physics. The brakes simply can't seem to match it when really pushed, at least by some accounts, as whilst the pedal feel is good and they provide ample confidence, when you do stand on them, you certainly wouldn't want to rely on them for too many laps of a race track.

Secondly, and perhaps more importantly, the M6 Convertible isn't too likely to go round a track at all. It's clearly not the car's natural stomping ground. Instead, it's a sublime heavyweight cruiser and it succeeds in doing so without breaking a sweat. It's a machine that both looks and feels special inside and out, whilst decimating Tarmac at an ungodly pace with the roof down, just like a good GT car should. The LCI update may be subtle, but experiencing an M6 Convertible most certainly isn't •

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f the future-shock i8 could speak, we reckon it might be smugly quoting Darth Vader: "Now the circle is complete. When I left you, I was but the learner: now I am the master." And who would it be addressing in such haughty tones? Why, BMW itself, of course. Because, following the stunning success of the fledgling i brand launched just four years ago, the tricks BMW has learned regarding plugin hybrid technology are filtering back into the 'core' brand – and the first series production model to benefit is the X5.

> There's no surprises there; since it was launched in 1999, an incredible 1.5 million X5s have been built at

hugely successful model in its own right, it's the sensible choice for Munich to electrify first. BMW calls this 'when xDrive meets eDrive'.

The X5 xDrive40e, to give it the proper nomenclature that fits in with the rest of BMW's badging, is a plug-in hybrid electric vehicle, or PHEV. The format is fairly simple – up front is the familiar 2.0-litre turbocharged petrol four, here making 245hp and 258lb ft of torque, in the middle is an eightspeed automatic gearbox and drive to all four corners, and underneath the boot floor is the eDrive lithiumion battery pack. The synchronous electric motor itself, rated at 113hp and 184lb, is sequestered away



340e and a 740e, both of which will use the same drivetrain in differing states of tune and then more 'regular' BMWs are likely to follow suit. Talking of power, the X5 PHEV is another of those hybrids where the peak system output figures are not the sum of their parts. At most, the xDrive40e delivers 313hp and 332lb ft of torque; the first figure is comparable with an xDrive40d but the latter is down 133lb ft on the diesel's 465lb ft maximum.

Nevertheless, some of the numbers connected to the X5 PHEV make for mind-boggling reading. It weighs the best part of 2.3 tonnes but can apparently return up to 85.6mpg combined economy while emitting just 77g/km CO₂. And yet despite being 'only' a four-cylinder vehicle, it will hit 62mph from

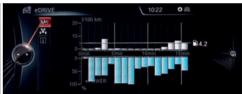












The PHEV X5's cockpit is reassuringly familiar with just the eDrive button showing the car's eco credentials. iDrive screen can show the car's different drive modes demonstrating when it's charging or how much eDrive you've used

rest in 6.8 seconds. Top speed is an electronically limited 130mph, in Auto eDrive mode.

Ah yes, the 'modes'. Like every X5, the PHEV still has the Driving Experience Control switch to change the car through Sport, Comfort and Eco Pro settings. But just aft of that is a new button, labelled 'eDrive'. Here, there are another three options: Auto eDrive, in which the car shuffles power between the various hybrid sources according to driving demands; Max eDrive, which keeps the X5 electric-only (unless there's no battery power left or you depress the throttle into kick-down); and Save, which either maintains the battery at or juices it up to 50 per cent charge by using the petrol engine and brake recuperation. Set the sat nav and the X5 will even work out whether it's in a built-up area or not, switching between electrified modes autonomously. Handily, you can over-ride that at any time by pressing the eDrive button.

All of the on-board technology works like an absolute dream, naturally. With a brimmed battery and Max eDrive selected, step-off acceleration is silent and suitably brisk. The electric motor, ZF auto and xDrive traction all shift the bulky X5 without any drama at all. You can go up to 19 miles at speeds up to 75mph without ever once troubling the petrol motor, which will be more than enough for suburban commuters, and it'll take around three hours to

replenish the battery via a 230-volt mains socket or optional BMW i-Wallbox.

But in Auto eDrive, the way the X5 switches the petrol on and off as required is seriously spooky. There's no shudder as it kicks into action, and the only way you'll tell it has cut off is watching the rev counter suddenly die away while it coasts. Silky smooth doesn't even cover it - the drivetrain is pure liquid and much quieter than any BMW diesel. The handling is fine, the extra bulk of the eDrive kit not ruining the X5's poise, while refinement levels are generally high. The engine only gets noisy at about 4500rpm and tyre noise is marked, but the xDrive40e cruises serenely.

What a shame, then, that the ride is questionable. On the typically excellent German roads around Munich, too often the secondary ride was weirdly busy. There were also a few occasions where the car rose up on tiptoes, as if the dampers were struggling to control the body. Odd, because self-levelling rear air suspension is standard fit on the X5 PHEV. The SUV was never out-and-out uncomfortable, but we'll need to reserve final judgement on the ride until we've driven it in the UK.

There are very few indicators that differentiate the xDrive40e. Discreet 'eDrive' boot badging and the door-mounted model inscription aside, there's the charging point on the front nearside wing and

BEHIND THE WHEEL





trapezoidal tailpipes to clock. Inside, it's the eDrive button, blue illumination in the dashboard and some extra electric-related screens in the iDrive. It's otherwise as luxurious and pleasing on the eye in there as any other X5 – albeit the battery under the boot floor means no seven-seat option. Cargo capacity stands at 500 to 1720 litres, though, so there is a benefit to that.

The biggest problem for the X5 xDrive40e is the NEDC (New European Driving Cyclefuel) consumption test. A quirk of its setup means that BMW is forced to quote those stratospheric eco-stats, when officials on hand at the launch freely admitted that only a handful of owners could ever hope to achieve anything like those levels. The minute you rely on the petrol engine, the X5 dips to much more real-world figures; we saw around 35mpg on a mixed Autobahn/country roads run and that's not a number that's going to get buyers flocking to showrooms.

Prices are yet to be confirmed ahead of its November on-sale date but BMW says it will be 'broadly comparable' to the xDrive40d. Which actually means 'in the £51,000 ballpark'. It can be fitted with all the options you would find on a normal X5, bar

those rear seats, and will be backed up by the 360 Electric customer support package as found with the i3 and i8.

Diesel is currently being demonised as the dark side of the force and plug-in hybrids such as this X5 get more impressive by the day. But the firm ride, lack of a seven-seat option and less-than-spectacular realworld economy figures mean we're not 100 per cent convinced by the xDrive40e, certainly not when compared to the brilliance of the 40d. You can be sure, though, that future BMW hybrids will be the masters of diesel. Darth i8 will be pleased









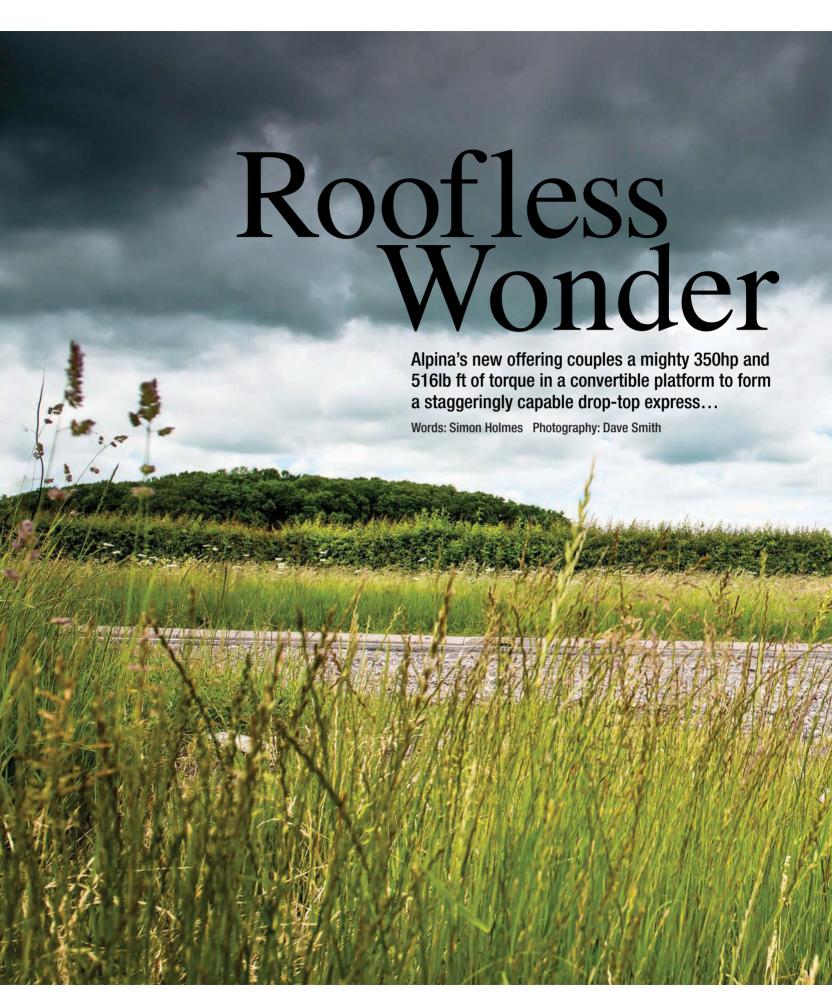
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t's the change in the exhaust tone of the M5 30 Jahre in front of me that I notice first. Then, within a split second it expels a small puff of smoke from the quad tailpipes before the car's rear end squats down to signify it's very much on the move. As a natural reaction, I plant my right foot and my car takes off. As we both rocket down the empty slip road and onto the quiet motorway running alongside, I can't help but raise my eyebrows in surprise. The special edition M5, the fastest-accelerating and most powerful BMW ever built when new, isn't exactly doing a great job of losing me. What's more, I have the roof down, the wind well and truly in my hair. So what is this soft-top that's keeping up with the M5? I'm currently behind the wheel of the new Alpina D4

Bi-Turbo Convertible. Editor Bob, piloting the M5, confirms he was equally surprised at the D4's pace as he says he was really going for it when we pull over on a suitable stretch of road sometime later for the necessary photographs.

It's got some impressive poke to say the least, but then we already knew it would. The Coupé and Saloon versions of the Alpina D4 were launched last year, but finally a drop-top version has been added to the expanding line-up. It's powered by the same 3.0litre, twin-turbo diesel unit which, to remind ourselves, has been tweaked with upgraded turbochargers and accompanying fettled Alpina ECU settings. The intercooler is larger and has improved flow and the air intakes redesigned to be more efficient. There's also a new freer-flowing exhaust system designed in conjunction with Akrapovic. Made from stainless steel, Alpina claims it produces a reserved but pleasing sound, and it's finished with twin-tailpipes with discreet Alpina branding. Last of all, the cooling system has been overhauled and upgraded to cope with the extra heat generated and there are now two new radiators.

The result from that careful reworking means it now delivers a wholesome 350hp at 4000rpm. That's plenty enough to put it above BMW's own range-topping 313hp 435d xDrive, but that's not the whole story. It's the whopping torque figure of 516lb ft that arrives like an overladen freight train on the run at just 1500rpm that makes the bigger impact. For the record, it just so happens that the special edition M5 makes exactly the same amount of torque...

The slightly cumbersome convertible platform has given Alpina's tuned diesel more of a challenge here. The weight penalty for a folding metal roof is a mighty 230kg over a Coupé and, as a result, performance has taken a bit of hit, at least on paper. Whereas the hard-top version covered the 62mph sprint from rest in a lightening 4.6 seconds, the Convertible posts a still mighty quick 5.0 seconds dead. It's hardly a huge amount and you would be hard pushed to notice it in the real world, as once on the move the car is able to administer ferocious amounts of acceleration with that huge wave of torque. Top speed is a frankly monstrous 171mph, just behind its Coupé brother.

Again, just like the other D4s, the engine is connected to the ZF eight-speed auto and there is no manual transmission option. Alpina has kindly fettled the auto 'box and its changing patterns to suit the car's new torque happy attributes and sporting nature. There are still three different modes to select ranging from a full automatic mode focused on outright effortless driving comfort with utterly smooth shifting













Subtle Alpina embellishments in the interior mark this out as not your common or garden 4 Series Convertible. Dakota Saddle brown leather works well with Black sapphire paintwork









Subtle Alpina spoiler looks good and is aerodynamically effective; Akrapovic exhaust not quite as tuneful as expected; 20-inch chromed Classic alloys hide blue, Alpina-logoed brakes



patterns. Then comes a 'Sport' mode that still changes gear automatically but raises the shifting points for a livelier feel. Last of all comes 'Manual' mode, when gearshifts occur at the fastest possible pace and gears are selected using Alpina's simple and subtle Switch-Tronic buttons, positioned neatly out of view on the back of the steering wheel, replacing the paddle-shifters usually found on a current automatic BMW.

All of the power and torque is transferred to the rear-wheels and the rear-wheels alone, which makes things a little more interesting, as BMW won't allow you to buy a 435d unless it has xDrive in place to harness all that power and torque. Based on that, you might think that perhaps the D4 struggles to put the power down on your average UK road by scrabbling for grip and lighting up tyres at every instance, but that's not the case at all.

As you would expect from Alpina, the chassis has been carefully tweaked to cope with the extra grunt on tap. The electronically adjustable adaptive suspension remains giving switchable modes, but it now features Alpina's own calibrations to provide the fine balance between comfort and sport characteristics. The springs themselves have also been replaced with stiffer items and matched with bespoke anti-roll bars. Smaller changes include recalibrated DSC settings and readjusted camber and toe-in settings for increased stability and precise steering with the larger wheel and tyre setup.

Speaking of which, the D4 comes on Alpina Classic multi-spoke wheels measuring wide 8x19 inches at the front and 9x19 inches at the rear. Behind them you can clearly see the distinctive blue callipers of Alpina's uprated brake package consisting of four-pot callipers with 378mm discs and 345mm discs at the rear. With this car the brakes are even more obvious as it's been fitted with the larger, optional 20-inch wheels. All wheels options are covered in sticky Michelin Super Sport 245/35 and 265/35 tyres that are no longer run-flat in the name of improved ride comfort.

Other changes are more superficial but still have a function. The lower front spoiler section, complete with Alpina logo, is designed to actively improve front end stability whilst channeling airflow towards the various radiators and coolers that require a constant flow of fresh air. The spoiler works in conjunction with the much subtler rear lip spoiler sat atop the edge of the bootlid and is joined by an equally subtle lower rear diffuser that wraps itself around the tailpipes.

Inside, there are a few nice subtle reminders you're driving something a little more special than the norm. The iconic blue dials, custom steering wheel, build plaque, kick plates and emblems on the seats and floormats all add to the feel.

It has to be said in this colour combination and without the normal Alpina pinstriping, the contrasting interior and exterior work well with the convertible's natural lines. It actually looks downright handsome in



As you would expect from Alpina, the chassis has been carefully tweaked to cope with the extra grunt on tap



fact, subtle, yet menacing. It's the kind of car that doesn't shout out loud but yet still holds your attention once you notice it.

Behind the wheel it's a little like that to drive as well. It's utterly composed, well-mannered and refined no matter what you throw at it yet it picks up pace so effortlessly you have to keep an eye on the speedo. It's deceivingly fast, as it wafts you along at an ever increasing rate of knots. Of course, plant the throttle through the carpet and the powertrain answers by shifting down a couple of gears, digging deep into the seemingly bottomless barrel of torque, and delivering it with a much larger kick, but you won't find an occasion where you really need to unless you happen to come up behind an M5...

The rest of the chassis, despite its increased weight penalty, complies with equally graceful composure. The steering weights up notably as the speed piles on in huge waves as the gearbox works through the cogs. In Sport mode, everything sharpens up a whole lot more, firming up the far from soft suspension feel. It maintains a lovely balance between comfort and performance and never seems too harsh, despite the huge wheel/tiny tyre combination connecting it all to the ground. The slightly softer than expected suspension means you can certainly have some fun

with it. Barrel into a tight corner with aggression and you can feel the weight lightly transfer as the car digs in and pulls itself around with that immense band of instant torque. It never feels as heavy as it should do, and it feels quicker than the figures suggest on paper. Having already driven a D4 Coupé, the difference in performance is virtually unnoticeable unless you had the two side by side, but it's nice pushing the car around playfully with the roof down to enjoy it all.

But whilst it's all good in these conditions, the sound, inevitably, lets the side down. Even the fancy Akrapovic exhaust system, which is usually renowned for its finely honed tone, cannot muster much more sound than that of a standard BMW diesel. There's certainly not the harmonic symphony that Alpina claim, and instead it seems to delivers a quiet, slightly gruff soundtrack that you can't really hear with the roof down. The engine note is slightly more noticeable with the roof up but that's because it's being channeled into the cabin no doubt. Either way, the sound never really comes anywhere near to where you would like it to be. It's a bit of shame, really, as having driven an X5 M50d, it's clearly possible to make a diesel sound good. But perhaps that's for the better, as noted already, the D4 doesn't like to shout out loud.

Aside from that, the D4 Convertible represents a thoroughly and hugely capable package for the money. Priced at £54.950 it's just £5000 more than a 435d xDrive Convertible yet here you get so much more, including that individual and rather special Alpina feel. Some will even find the lack of four-wheel drive a plus point rather than a negative and the nearest rear-wheel drive offering from BMW is the 430d Convertible at £45,700. But with nearly a 100hp and 100lb ft of torque difference the 430d Convertible is not quite in the same league. Although there's not a lot that is, really. You could argue an M4 Convertible offers a similar package but it doesn't. The on paper figures might be comparable, there's no denying that, but the D4 does its Tarmac-devouring trick with a whole lot less shouting and is a little bit more suave in its approach. It's the king of subtlety in comparison, eating up sections of winding B-road with incredible ability yet without breaking so much as a sweat. It could certainly catch an unsuspecting M5 owner out on an empty stretch of road...

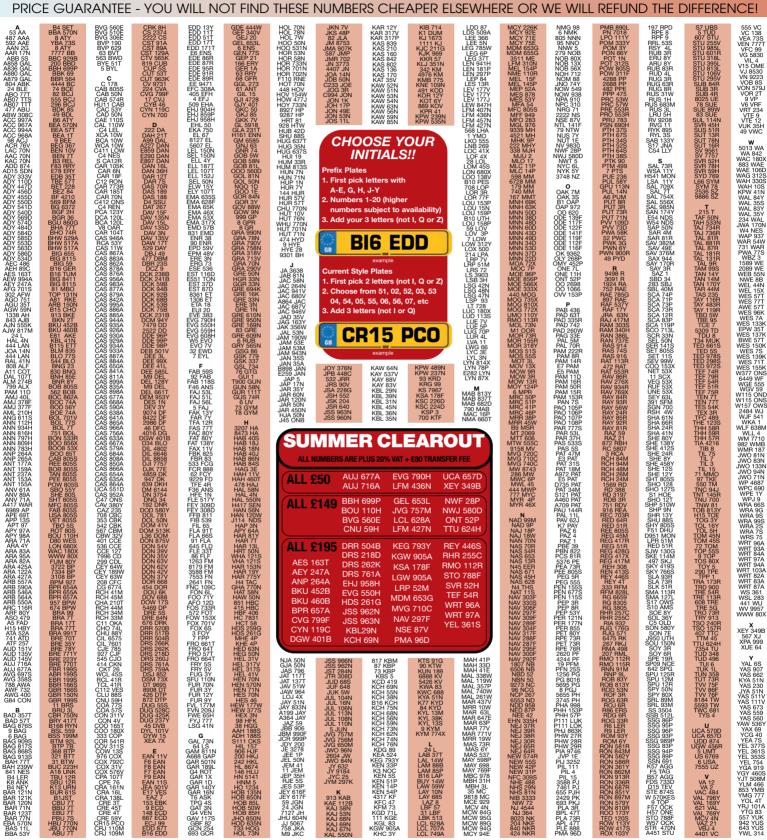
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hen Audi introduced the four-wheel drive quattro in 1980, it changed the car market, and the BMW brand, forever. The quattro was a key reason why so many cars are offered with a choice of two- or four-wheel drive today and why the xDrive brand exists at all.

Of course, the concept of sending drive to all four wheels wasn't actually anything new; you could order a Jensen Interceptor with four-wheel drive back in the late 1960s. You could also argue that if Audi hadn't done it then another manufacturer inevitably would have. Whilst that is true, Audi marketed the quattro superbly. The brand committed to the technology, launched it on a large scale, marketed its abilities shrewdly and backed it all up with instant motorsport success. All of this ensured the all-wheel drive technology rapidly gained positive interest with the public and car manufacturers alike.

Rival car brands soon wanted a part of the buzz Audi had both created and cornered, but it wasn't necessarily for the gains the four-wheel drive system actually offered. Instead, it was the marketing kudos of being at the forefront of technological design and innovation. The increased traction the technology brought with it did improve safety, ability and performance but manufacturers such as BMW clearly weren't ready to invest heavily in four-wheel drive just yet. That's why it only offered just one four-wheel drive model at first: the 325iX.

Revealed at the 1985 Frankfurt motorshow the car's four-wheel drive transmission system was

supplied by the UK company Ferguson. The firm certainly had the credentials for the job, as it happened to be the same company that supplied the four-wheel drive conversions to the aforementioned Jensen Interceptors many years beforehand. The supply arrangement with Ferguson was actually the same system used by Ford for use in the Sierra. Like Ford, BMW then integrated it into the 325iX using its own parts, which was relatively simple. The engine itself was a standard 170hp 2.5-litre straight-six, selected as the weight penalties and transmission losses that would accompany the four-wheel drive system would be less noticeable with it.

The gearbox, too, was a standard item shared with a regular 325i, which meant the 325iX could be selected with either a manual or automatic. But as drive left the back of the transmission it was fed straight into a central transfer box, fitted with a ZF supplied viscous coupling to act as a locking differential and to distribute the power between the front and rear axles. There were no electronics to govern the differentials but if one set of wheels started spinning, the centre viscous coupling was able to redistribute power to the opposing axle. Unlike other four-wheel drive systems of the time, that meant the iX was permanently powered by all four wheels, with a bias of 37/63 towards the rear. Or, as BMW described it, one-third to the front and two-thirds to the rear, a ratio selected to suit the car's natural weight distribution under acceleration. A regular propshaft transferred the power straight

from the centre differential to a normal rear axle setup, which was also fitted with another viscous locking differential to evenly divide power between both rear wheels.

At the front, things were a little different. An internal, multiple-row chain connected the centre differential to an offset, external propshaft that ran back alongside the gearbox and engine towards the front differential placed in the nearside of the engine bay, right next to the sump. Here things were a little tight as the front driveshafts required a straight run directly into the hubs. So to achieve the correct angle, a new sump design was introduced that would allow the offside driveshaft to pass through it completely. Next, the whole subframe had to be shifted forward for clearance, which also required a new lower wishbone design. The original power steering and anti-roll bar setup were retained, remounted slightly further forward, whilst the front struts were slightly repositioned and used different spring supports. Altering the kingpin angle also achieved a natural negative offset geometry, which helped reduce the car's tendency to understeer now that drive was going to the front wheels. The ride height was also increased and the overall front end track widened by 13mm. This subsequently required wheel arch extensions and slightly puny 6x14-inch steel wheels were employed to fill them, although there was an option for larger TDX alloy wheels that came only in metric sizes.

Elsewhere, changes were made to the car's







transmission tunnel to house the centrally-mounted transfer box and the original ABS system was tweaked to cope better with low speed braking on slippery surfaces. Unlike the rear, the front differential was a standard open affair without an LSD and the rear differential ratio was a slightly livelier 3.73:1 ratio for the manual, or 3.9:1 for the automatic. That helped improve low down performance, but the 90kg weight penalty for the extra differentials and shafts meant acceleration suffered compared to a two-wheel drive 325i. Despite the added traction off the line. 0-62mph now took 9.0 seconds, whilst top speed dropped to 131mph.

The 325iX was only available in left-hand drive configuration and, initially, as a two-door Coupé or four-door Saloon. You could actually order one through BMW UK for a short time and around 40 examples were thought to have been supplied in this way. Elsewhere, sales were significantly more pleasing but never truly substantial, and around 30,000 were built in total from 1986 to 1992.

Finding any example now is as rare as hen's teeth, especially in the UK, and the Touring, which was introduced towards the end of the iX's production run, was the rarest of them all. The larger load-lugger was much the same as the Coupé and Saloon counterparts with one exception that makes it rather unique. At the rear, the Touring was fitted with ventilated discs, a feature that isn't found on any other E30 model, including the M3.

The fine example pictured here is currently for sale at BMW specialist JFI Classic Cars and is a genuine one-owner car. Ordered in 1990 by a British family living in Switzerland, it was imported to the UK when it was less than a year old and has lived here ever since. That seems guite remarkable considering the car is in such good condition and it's not just been parked in storage either, having covered 122,000km









(around 75,000 miles) in its time. And yet not only does it look nearly new both inside and out but it feels factory-fresh to drive, as I find out first-hand when I'm offered a chance to take the wheel on the glorious mountain roads of the Brecon Beacons. It seems like the ideal hunting ground to experience and exploit the car's rare four-wheel drive credentials and unique characteristics.

Reassuringly, the first thing I notice is this particular car has very good brakes with plenty of early pedal feel, which is a rare trait for an E30 nowadays. But aside from the left-hand drive driving position, it has to be said that the perhaps the strangest thing about the 325iX is that it all feels very normal. I'm not quite sure what I'm expecting from the car really, but it soon becomes apparent that on the straighter sections of Tarmac I'm currently meandering along at a decent pace it feels no different to any other standard E30 I've driven. At this level you genuinely couldn't tell that all the wheels are propelling the car.

The story changes when it comes to a much tighter turn, of which there happen to be many here. Then, you soon find you can enter the corner with a decent pace, just like a regular E30 but, unlike a

regular E30, the car doesn't exhibit the normal signs. Usually, you would be ready to correct the inevitable touch of oversteer that comes from this scenario and yet here you turn in, accelerate and nothing seems to happen except the car glides its merry way around the tightening turn. When pushed a little harder there are early signs of understeer, no doubt hampered by the large profile snow tyres that are fitted as much as anything else, yet still the front end seems to dig down, dig in and pull the car through with a reassuring tug towards the corner's apex. The tailhappy rear end's wayward traits can soon be forgotten as the other end does what it's supposed to and without kicking up much of a fuss. It's all pretty refined, and there's no unrest or nasty bite, to the car's handling characteristics, which makes it refreshingly pleasing.

The performance itself does seem a little subdued compared to a regular 325i, just as the figures suggest, but there's plenty of torque to go around. which certainly helps. An automatic wouldn't quite be so fun, I suspect.

With such reassuring handling attributes you might have thought BMW's first foray into four-wheel drive

would have been more popular. Indeed, back when it was new, a test against the rival Audi 80 quattro revealed the winner to be the BMW, awarded for its friendlier driving style. But as stated already, BMW wasn't too bothered about creating a four-wheel drive legacy at this point. A 5 Series version did follow in the 525iX back in the 1990s, but it wasn't until the late 1990s when the xDrive was reinvented in the first generation of the X5 that we saw BMW finally embrace the four-wheel drive concept properly.

As for the 325iX, a quick check on the internet indicates there are just 11 on the road and another 17 declared SORN in this country, making them some of the rarest E30s in existence. That seems a shame considering the model's importance in BMW's history file, but then perhaps it's best we ignore that we have Audi to thank for something so important

THANKS: JFI Classic Cars Tel: 07966 440609 Web: www.jficlassiccars.co.uk

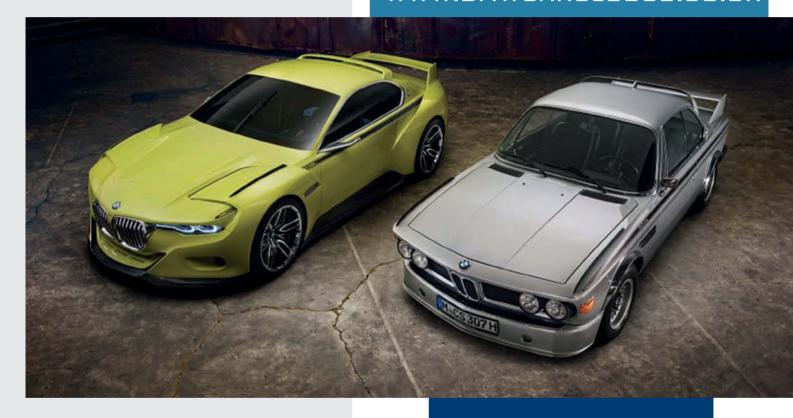


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Brave New World





The all-new 7 Series was revealed to the world in Munich last month and with a sharp new suit and some seriously high-tech underpinnings and interior gadgets BMW is looking to rule the luxury class for some time to come

Words: Bob Harper Photography: BMW

o here it is, the all-new 7 Series, BMW's statement of intent to be the manufacturer of the most advanced vehicles on the planet. Revealed in Munich last month in a ceremony attended by the entire BMW board of management an indication, if any were needed, what an important car this is for the company – the G11 Seven is, by quite some margin, the most technologically advanced machine the company has ever built. Whether one's talking about its hybrid construction, its all-new six-cylinder engines or its staggering levels of equipment and optional extras it's plain to see that BMW has really gone the extra mile with this sixth generation 7 Series. BMW is hunting down the S-Class Mercedes with the G11 and expects this car to be the benchmark for executive vehicles.

When it goes on sale in the UK in October with prices starting at £64,580 we will be offered a 730d and a 740i with a plug-in Hybrid 740e due to follow in 2016. Other markets will also be offered a 450hp 750i xDrive model as a range topper but as the UK market is virtually non-existent these days for large petrol engined machinery this will not be an option for UK buyers. No doubt in time further variants will come to market - a V12 petrol model and a more potent diesel are a shoe-in — but for the time being we'll be restricted to the two six-cylinder models mentioned above. We'll come on to those engines in a moment but to start with we'll kick things off by looking at the design of the new Seven.

It's certainly a case of evolution rather than revolution when it comes to the shape of the new 7 Series — no E65-style shocks for this generation thank you very much — and overall it's a very handsomelooking car. To our eyes the kidney grilles are perhaps a bit too large but BMW has done this on purpose to endow its latest flagship with a dominating look from the front. Heaven forbid someone might mistake your all-new Seven for a lesser BMW model! It does have a strong family resemblance to the rest of the BMW family and in profile from a distance it has very similar lines to the F30 generation of 3 Series. It's well proportioned and has some lovely detailing, particularly in the chrome that runs around the windows and from the air-breather aft of the front wheels. The chrome surround on the rear doors is milled from a single piece of metal and while it might sound like a trifling item it does look particularly attractive in the flesh giving a very stylish and fresh look to the Hofmeister kink. You'll be able to make your own mind up on the way it looks of course, but



we'd say that it's far more arresting in the flesh than it appears in the majority of BMW's rather uninspiring set of press pictures it's released of the car.

That it's a large machine is a given — in standard wheelbase form it's nearly two centimetres longer than the outgoing machine — and in long wheelbase guise it now measures 5238mm — a significant 14 centimetres longer than the standard car. Despite this increase in size and the additional kit that's been added to its standard specification, the new Seven is actually up to 130 kilos lighter than the previous generation 7 Series and that's down to an innovative use of materials in the car's construction. At its heart is what BMW is calling a 'Carbon Core' which involves the use of carbon fibre reinforced plastic for some key components. From the A- to the C-pillars there's a carbon panel which allows the steel around it to be lighter and some of the roof bearing components, the

rear shelf and parts of the sills and B- and C-pillars also contain carbon panels, some constructed from freshly weaved carbon, some using recycled sections from the i cars. BMW has even come up with an innovative process where it can bond the carbon to the steel in the B-pillar which not only makes it lighter but offers improved side impact protection too. There's also a significant amount of aluminium in the car's construction with the bonnet, doors and, for the first time, the bootlid being entirely made from aluminium. It's also used extensively in parts of the chassis and suspension which BMW reckons reduces the unsprung masses by up to 15 per cent and also lowers the car's centre of gravity too.

Providing the motive power for UK Sevens are a brace of new six-cylinder petrol and diesel engines from the new B generation of powerplants. The 2998cc petrol in the 740i develops 326hp and 332lb

ft of torque and is equipped by the normal raft of BMW's latest techno wizardry such as direct injection, double Vanos, Valvetronic and a twin-scroll turbocharger that features an indirect system of charge air-cooling that's incorporated into the intake manifold. The head, block and sump are all constructed from aluminium. It endows the Seven with a decent turn of speed too, with 0-62mph coming up in 5.6 seconds while its top speed is limited to 155mph. It's frugal — offering up 41.5mpg on the official combined cycle and emits just 159g/km of $\rm CO_2$ — which is an impressive feat for something that's so quick and big.

Despite its impressive figures it's not the 740i that will be the big seller in the UK where diesel is king as the new 730d will almost certainly garner the lion's share of sales. It develops 265hp and a stonking 457lb ft of torque from its new 2993cc B57 unit that

NEW G11 7 SERIES











BMW expects this car to be the benchmark for executive vehicles

is said to have improved thermodynamic properties, revised variable turbocharger technology and a new 2500 bar direct injection setup. The bottom line, though, is a set of figures that appear to be bordering on alchemy. The benchmark dash is dispatched in just 6.1 seconds yet its combined economy figure is a monumental 60.1 mpg while emissions are equally impressive at just 124g/km.

Joining the 740i and the 730d next year will be the first PHEV 7 Series in the form of the 740e which will use a combination of a four-cylinder turbocharged petrol and an electric motor in a drivetrain very similar to that of the X5 xDrive40e that you can read about on page 22. With combined power and torque outputs of 326hp and 369lb ft it's seriously rapid (0-62mph takes just 5.6 seconds) yet on the official combined cycle it will achieve 134.5mpg and emit just 49g/km of CO₂. In the real world there's no

chance of it achieving these figures but it does have a useful all-electric range of 25 miles and can achieve speeds of up to 75mph on electric power alone.

All models in the new 7 Series range feature the brilliant eight-speed auto we've become accustomed to in the latest BMW automatics and for the Seven BMW reckons it's been further refined with a new control system that should endow the box with even smoother changes. It also gives it the ability to link into the navigation system so it knows when to swap cogs when climbing hills or approaching roundabouts. The UK will also receive some four-wheel drive models and both the 730d and the long wheel base version of the 740e can be ordered in xDrive guise.

While the 7 Series has always been acknowledged as the driver's car in its class it's always struggled to match the S-Class and other rivals for ride comfort, but BMW is hoping to change all that with the new

car. For the first time the Seven will feature selflevelling air suspension on both the front and rear axles and this will be a standard feature on all models. It's combined with a double joint front axle setup, a five-link system at the rear and standard fit Variable Damper Control which BMW hopes will both improve ride and suspension comfort while providing dynamic handling qualities. The standard car can also be further enhanced with what BMW is dubbing an 'Executive Drive Pro' feature that will be part of the options list and encompasses a new incarnation of the Dynamic Drive active roll stabilisation system that's now controlled electromechanically rather than hydraulically. According to BMW, when the car's driving in a straight line the adjustable anti-roll bars are set so as to allow the suspension system the greatest possible freedom of movement for increased comfort but when tackling bends at speed the body



roll forces are equalised swiftly and precisely.

It's perhaps inside the new Seven that BMW has really gone to town, and while the overall dash design owes much to the recent models that have come before it, for the 7 Series BMW has really upped the stakes as far as quality of materials used and the new technology that's packed into the car. The steering wheel controls, heating and ventilation and stereo inputs are now constructed from a high quality chrome that BMW says is individually tailored for each car to ensure a perfect fit, and these chrome sections are surrounded by high-quality wood trims. The iDrive system and the multifunctional instrument display have been thoroughly updated and as standard the car comes with a huge 12.3-inch display complete with the Professional Navigation system. For the first time, many of the car's functions can now be controlled from a new touch-screen interface - we're so familiar with touch-screens from modern mobiles

and tablets that BMW felt the need to add this to the system. There's also now a new gesture control system which allows you to turn up the stereo volume or accept or reject incoming phone calls with a flick of the hand detected by a 3D sensor mounted in the roof. Overkill maybe when you already have the iDrive controller, steering wheel mounted controls, the new touch-screen and voice commands already at your disposal, but BMW reckons it simply gives the customer more choice in the way that he or she can operate the car.

As you'd expect, the amount of gadgetry packed into the Seven is impressive. There's four-zone climate control air conditioning (with separate controls for rear seat passengers), Bluetooth telephone and audio streaming along with an inductive charger for the owner's smartphone in the centre arm rest between the front seats. The standard Comfort seats will be available in a choice of six

exclusive Nappa leather colours and the front seats have a massage function that offer eight different programs 'designed to relax and stimulate the muscles in regions of the body that can be individually selected'. There's even a 'Vitality Programme' for optional massage rear seats so passengers can also revitalise their bodies!

In order that you can select the right ambience in the passenger compartment, BMW has packed the Seven full of different lighting options. There's the standard 'Ambient' lighting that runs around the cockpit as a series of LED light strips which can be changed through six different colours. To light your way to the car in the dark there's a new 'Welcome Light Carpet' that projects lighting graphics to the entrance/exit area from lights incorporated into the side skirts. Long wheelbase versions that are spec'd with rear roller blinds will be equipped with an Ambient highlight — vertically arranged lights in the

NEW G11 7 SERIES











As you'd expect, the amount of gadgetry packed into the Seven is impressive







UK G11/G12 7 Series line-up						
	730d	730Ld	730d xDrive	740Li	740e	740Le xDrive
ENGINE:	Six-cylinder, 24-valve	Six-cylinder, 24-valve	Six-cylinder, 24-valve	Six-cylinder, 24-valve	Four-cylinder, 16-valve plus	electric motor
CAPACITY:	2993сс	2993сс	2993сс	2998cc	1997сс	1997сс
POWER:	265hp @ 4000rpm	265hp @ 4000rpm	265hp @ 4000rpm	326hp @ 5500-6500rpm	Combined output (engine	& electric motor) 326hp
TORQUE:	457lb ft @ 2000-2500rpm	457lb ft @ 2000-2500rpm	457lb ft @ 2000-2500rpm	295lb ft @ 1380-5000rpm	Combined torque (engine	& electric motor) 369lb ft
0-62MPH:	6.1 seconds	6.2 seconds	5.8 seconds	5.6 seconds	5.6 seconds	5.5 seconds
TOP SPEED:	155mph	155mph	155mph	155mph	149mph	149mph
ECONOMY:	60.1mpg	58.9mpg	56.5mpg	41.5mpg	134.5mpg	122.8mpg
EMISSIONS:	124g/km	127g/km	132g/km	159g/km	49g/km	53g/km
WEIGHT (EU)	: 1830kg	1870kg	1900kg	1845kg	TBC	TBC
PRICE (OTR):	£64,530	£68,480	£67,260	£72,060	TBC	TBC

back of the B-pillar which can be adjusted depending on your mood. Then there's the 'Sky Lounge Panoramic glass roof' which can be specified as an option that's a two-section sunroof (only the front section opens) that's incrusted with LED modules to create the effect of a starlit sky... and obviously the colour of your stars can be swapped between six different colour schemes. There's even an optional 'Ambient Air Package' to ensure your olfactory senses aren't feeling left out which releases an ionised fragrance (there are eight to choose from) in three different levels of intensity.

While some of this might sound like it's bordering on overkill there will no doubt be plenty of markets where these trinkets are in demand, but in amongst the fripperies there's also plenty of good stuff too. Like the 'Executive Lounge Seating' (which doesn't actually come on stream until July 2016) which offers the promise of superlative rear seat comfort thanks to

the fact that with this setup the front passenger seat moves as far forward as possible and as its backrest can also be tilted forward it gives a huge amount of space along with an electrically operated footrest that drops down from the back of the passenger seat. There's also a new 'BMW Touch Command' unit – effectively a removable tablet with a seven-inch screen – that can be used to operate the rear seat entertainment system or the air conditioning, interior lighting or for surfing the internet. There's even an airline style tray that's stored within the rear seat centre console.

In amongst all this gadgetry for the passengers the driver hasn't been neglected and there's a new head-up display system that's 75 per cent larger than the previous version and if at the end of a long day the driver doesn't fancy squeezing the Seven into its garage then he can simply get out of the car and use the new 'BMW Display Key' to park the car. As you'd

expect there are a host of Connected Drive services such as a new 'Driving Assistant' safety package. This includes items such as rear collision prevention and rear crossing traffic warning as well as the familiar lane change and lane departure warnings and the Active Cruise Control system. For night time driving there are standard-fit LED headlights than can be bolstered with the optional Adaptive and Selective beam and even BMW Night Vision or the optional BMW Laserlight headlights first seen on the i8.

There's no doubting the fact that BMW has really pushed the boat out when it comes to the new Seven and it features the sort of specification and a list of features that we'd have dismissed as cloud cuckoo land just a few years ago. It would seem that the car has all the right ingredients to really take on the Mercedes S-Class but the proof of the pudding will be when we get to drive the 7 Series later this year. We can't wait •



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M PERFORMANCE 335i TOURING





t's not that long ago — and I know this because we're talking about during my lifetime and whatever my kids might think I'm really not that old — that a BMW was seen as a very exclusive machine. Only the well-heeled could afford one and while dynamically they knocked the spots off offerings from the British manufacturers it wasn't as if any Tom, Dick or Harry could wander into their local showroom and buy one. Back in 1973 if you fancied a large saloon with a decently sized engine you had plenty of cars to choose from; how about a 3.3-litre Vauxhall Ventora for less than £2000, a Ford Granada 3.0 GXL for £2300 or a BMW 3.05 Saloon for an eyewatering £4900? No wonder there aren't a huge number of £3 Saloons left on the roads these days.

Fast forward a little over ten years though and we can already see BMWs becoming more competitively priced and while you might think that BMW's entry

into the company car market is a relatively recent phenomenon a glance at an *Autocar* road test of the four-door E30 318i from 1984 shows that even 30 years ago BMWs were starting to be seen as a left-field entry into the fleet market. "We have tended to look at the BMW 318i as a company car," said *Autocar*, "and there is no doubt that it is being aimed strongly at that sector of the market."

Perhaps what comes as the biggest surprise though is that with a base price of £8250 the 318i was actually cheaper than a Vauxhall Cavalier 1.8CDi. Admittedly you'd have to pay extra for just about everything on the BMW – you didn't even get an aerial for over eight grand in those days, let alone a radio – but in the space of ten years the company had come from being over twice the price to almost on a parity with Luton's finest. And in the ensuing years BMWs have become more prevalent on our

roads and while once upon a time they were viewed as an expensive and rarely glimpsed oddity you now can't drive down the road without tripping over one.

Yet even though BMWs are now a common sight and bordering on the mainstream, BMW has been careful to retain that 'premium' branding and feel. Even though this is the case, chances are that virtually whatever modern BMW you drive it won't be long before you see another on the road that's identical to yours. Sure, if you order an M6 Gran Coupé in a particularly wild BMW Individual hue you should be safe, but for the rest of us who are more likely to be in the 1 or 3 Series end of the market you can be pretty sure that it won't be long before you spot what appears to be an identical BMW to your own steed out on the road. However, opting for a Touring version of the 3 Series will inevitably increase your chances of standing out from the crowd as the



Opting for a Touring version of the 3 Series will inevitably increase your chances of standing out from the crowd









F31 335i Touring

ENGINE: Straight-six, 24-valve, turbocharged

CAPACITY: 2979cc

MAX POWER: 306hp @ 5800-6400rpm MAX TORQUE: 295lb ft @ 1200-5000rpm

ECONOMY: 37.2mpg EMISSIONS: 179g/km TOP SPEED: 155mph (limited)

0-62MPH: 5.2 seconds

M PERFORMANCE PARTS FITTED: Front splitter, matt black (can be painted): £486. Rear diffuser, matt black (can be painted): £440. Rear roof spoiler, matt black (can be painted): £319. Black kidney grilles: £95. Side sill attachment trims, matt black (can be painted): £294. Side sill decals: £98. Carbon door mirror covers: £504. 20inch 624M complete wheel and tyre set, matt black: £2800. M Performance exhaust system and tailpipe trims: £800

All prices quoted are for parts only but include VAT. Contact your local dealer for painting and fitting costs, plus details of any promotions running on M Performance packages





The 335i is an impressive piece of kit to hustle along a decent road; the eight-speed 'box proving the perfect match for the turbocharged straight-six

Saloon outsells the five-door by nearly three-to-one. And opting for the 'Estate' shouldn't really be a hardship as out of all the versions of the 3 Series it's perhaps the Touring that's most appealing. To my eyes it's just that little better proportioned than the Saloon and that's something that holds true no matter which incarnation of Three you're talking about. And with the latest F31 generation somehow the extended roofline endows the car with a longer, lower, sleeker profile and it's a machine that looks good from virtually every angle. The fact that it has a significantly larger load carrying ability than its siblings is an added bonus that can't be ignored, too. And if it appears smart and dashing in its standard form it can look even better with a generous application of BMW M Performance accessories as can be witnessed by this rather fine 335i example we have here.

It's perhaps more usual to see a Saloon or Coupé fitted with items from BMW's M Performance catalogue but I reckon that Touring owners are missing a trick because to my eyes this Estoril blue example really does look stunning. I've been having a meeting with some of the chaps at BMW UK while snapper Smithy has taken the Touring off to get cracking on the photos and when I arrive at our prearranged photo location I'm struck by just how stunning this 335i looks. I can't quite put my finger on which individual component it is that's making it look so good, so can only assume that it's the entire package that's giving it such visual appeal.

Kicking things off at the front is the lower front splitter which endows the Touring with a hunkered down appearance and on this machine the moulded black plastic has been left in its natural state but it can also be painted, too. This seems to be a personal choice and having seen plenty of cars fitted with this type of front spoiler setup it does seem to be colour dependant, too — it works better painted on some machines than others. Also at the front is a pair of black kidney grilles which again is a matter of personal taste. I like them on just about all colours apart from black but I know plenty of people who think a black car needs a set of black grilles! On this Estoril machine I think they work particularly well.

Moving down the car and we have a set of the M Performance carbon mirror caps which I'm a sucker for – show me some sexy carbon weave and I'm sold. Along the sills you'll find the second part of the M Performance Aerodynamic Package, the black plastic blades that run along the bottom of the sill trims and just above these we have the black stick-on film with the M Performance logo and I still can't 100 per cent make up my mind whether I'd fit these on a car or not... the good news though is that they're optional so you have the choice of fitting them or not.

At the rear the Touring's finished off nicely by an attractive spoiler that fits to the top of the tailgate while in between the twin-exit exhausts you'll find a black plastic diffuser which helps to complete the sporty look of the car. The roof spoiler is painted (it would look really odd if it wasn't!) and like the front splitter the rear diffuser can also be painted in body colour if you so desire. Incidentally BMW does recommend that if you're going to fit the front splitter then the rear spoiler should also be fitted (and vice versa) or it could result in an aerodynamic imbalance.

Before we move on to the rather fine set of alloys the Touring is wearing we should also mention the exhaust system that emerges from the rear valance either side of that diffuser. The M logo etched into each of the twin pipes gives the game away that this isn't your regular 335i setup as this machine has the M Performance rear silencer that promises an improved sound as well as looking good, too.

We'll put it to the test momentarily but before we do we should just mention the rather arresting set of alloys the car's fitted with. Their official title is M Performance Dual Spoke 624M and they come in a 20-inch diameter and come clad in a set of run-flat tyres; in this instance a set of Pirelli P Zeros. The wheels themselves measure 8x20- and 8.5x20inches (front and rear respectively) and the tyres are 225/35s and 255/30s. They're a forged design and weigh around a kilo less per wheel than a normal cast BMW 20-inch wheel which obviously has an effect on the car's unsprung weight and should consequently give an improvement in handling. The 624M wheel and tyre set is available in two finishes - matt black or polished – and it's the former we've got here. While I'm generally not a huge fan of black alloys these ones have partially polished faces to their spokes and I actually really like the way they sit with the car and they catch the light as they turn, looking good in motion where so many black alloys just look like a dark blob within the wheel arch.

So this Touring certainly looks great, but how does it translate to the road? Despite the its good looks I don't think I'm going to feel any additional downforce that may be generated by the aero kit, but what we need to look at most closely is the how the bigger alloys affect the car and whether that M Performance exhaust is worth its £800 price tag. Over a variety of

M PERFORMANCE 335i TOURING





different roads the 335i proves to ride well, and while there's always a concern when you install larger wheels that there's a possibility of upsetting the car's dynamic balance this doesn't seem to be the case here. Sure, if you hit a particularly huge pothole you do feel it, but on what I'd term 'normal' UK roads the 335i rides comfortably. That there's plenty of grip should be a given, but unless you really provoke the Touring it simply remains utterly planted. While we don't tend to get quite so much feel through the steering wheel these days with the latest generation of electronic power steering systems, this car actually feels better than most, and perhaps that's down to the slight reduction in unsprung weight? Either way the 335i is still a very impressive piece of kit to hustle along a decent road; the eight-speed 'box proving the perfect match for the turbocharged straight-six.

The BMW M Performance exhaust also seems to work very well, offering a little bit more with its vocal repertoire than you'd get with the standard system, most notably at higher revs and it does elicit a delicious burble and the occasional pop and crack on the over run or when swapping cogs on a charge. Notch the pace back a tad and it's a perfectly civilized companion on a longer drive and on the motorway run back to BMW's new Aldershot HQ it's quiet and subdued, which is just how it should be. For my taste the exhaust offers a perfect blend of subtle aural delights but I would hasten to point out that if you're looking for a significantly louder-than-standard setup you'd better look elsewhere.

All-in-all, the M Performance 335i Touring certainly ticked all my boxes. I love the Touring shape and the M Performance additions enhance it to my eyes. The

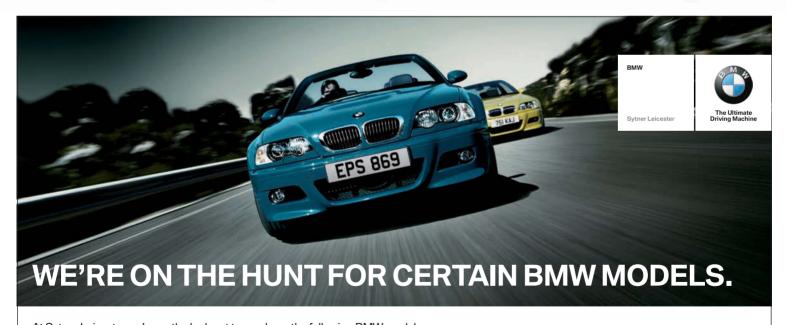
best thing about BMW's accessories program, though, is that you can pick and choose what you want. For example this machine didn't have any of the interior goodies we've seen on other M Performance demo vehicles so you really can cherry pick the upgrades that most suit your needs. As you can see from the prices in the spec panel on page 53 the individual prices aren't unreasonable and don't forget that many dealers will be offering reductions for 'kit' prices where several items are purchased and fitted at the same time. In the final analysis, what the $\ensuremath{\mathsf{M}}$ Performance range of accessories offers is the ability to make your BMW look out of the ordinary, to be just that bit more individual than the other similarly spec'd machines you're likely to see on your daily commute. And in this increasingly homogenised world that's no bad thing at all



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s an exercise in mismanagement this ranked up there, almost on a par with anything Ricky Gervais's David Brent could have come up with. It all started so well, with BMW's undeniably sexy and brutally fast 30 Jahre M5 booked in for the week which would encompass a weekend in Devon plus the usually gamut of photo shoots, commuting and dayto-day living. The first fly in the ointment was the cancellation of our weekend away in Devon - no blasts across Dartmoor in the M5 then. The second disaster was my wife offering up my services as removal man for the weekend and while the M5's split folding rear seats do offer some excellent additional practicality the only way the items I needed to move would fit in the Five would be if I converted them into component form with the aid of an axe.

So when Friday afternoon came around and going home time loomed large I offered the keys to Munich's finest to Features Writer Simon, and saw him move faster than I'd previously witnessed – he almost ran out of the door just in case I suddenly changed my mind. After a weekend of tedium in my Passat estate lugging chests of drawers around London it came as little surprise when snapper Smithy and I rendezvoused with Simon at the crack of dawn along the M4 the following Monday that he had a grin across his face like a Cheshire cat and a large handful of receipts for super unleaded - he'd certainly been enjoying himself.

I let him continue to enjoy the high life as we sauntered down the M4 to our photo shoot location in the Brecon Beacons and catching a glimpse of the 30 Jahre's LED daytime running lights every now and then in the rear view mirror rising and falling as he went on and off the throttle demonstrated what an eye-catching visage the hot Five has. I know Simon's following me so isn't likely to want to overtake, but nevertheless I still want to move out of the M5's way when it comes up behind me - the gaping air intakes, stealth paintwork, discrete M5 badging and those twinkling LED lights combine well to give the car a very aggressive face. It might as well have a neon reverse script 'move over' sign in its gaping central maw that's currently sucking in the cool air to keep the V8 twin-turbo motor cool.

We arrive at our location without a hitch and it's my first chance have a proper look around the M5 and it doesn't disappoint. Simon's not always one to be effusive over a test car but he hardly stops babbling about its various charms. Perhaps one of the most impressive nuggets of information he imparts is that on this morning's 170-mile run to Wales it's averaged 29 miles to the gallon which is pretty good going for

any large petrol engined saloon, let alone one packing this much horsepower. We do need a quick recap though to see just what this machine has that singles it out from your everyday M5.

The M5 30 Jahre Edition, to give the beast its full title, was introduced last year to celebrate 30 years of M5 production and it was limited to just 300 examples, all finished in Frozen Dark Silver, and just 30 of which were destined for the UK market, so about as rare as a modern day BMW gets these days. Mechanically the big news was the fact that this machine was to be the most powerful production BMW ever produced with a stonking 600hp and a 'bahnstorming 516lb ft of torque, with the additional 40hp and 14lb ft coming from some ECU tweaks and an increase in charge pressure. This power upgrade also made the 30 Jahre the most accelerative BMW ever produced, with the 0-62mph time dropping to a scant 3.9 seconds, a 0.4 second improvement over the regular M5, and a pretty amazing feat for a machine that weighs just a smidgen shy of two tonnes.

More or less the rest of the car's mechanical specification came from the Competition package for the M5 which while it offered a power upgrade was perhaps more concerned with sharpening the M5's already capable chassis. So for the 30 Jahre we have

F10 M5 30 JAHRE





It's certainly the most rounded machine the company has ever made - ungodly fast at times, yet quiet, refined and cosseting when you want it to be











a set of springs and dampers that have been finely honed and mildly firmed up which has resulted in a 10mm drop in ride height. Some criticism has been aimed at the 'normal' M5's steering for being less communicative than of old so for the Frozen Silver missile M has recalibrated the standard fit M-specific Servotronic steering with more direct mapping and in order that the rear end can be brought into play a little more readily there have been tweaks here too, with an additional control unit for the Active M Differential for better traction and a recalibrated DSC to give what BMW describes as 'sporty handling'.

There's plenty of additional kit fitted as standard and plenty of bespoke 30 Jahre items but before we get into those and getting the static pictures in the bag I need to give the car a drive before we get busy with sponges and chamois. This is a machine I've been itching to sample since I first saw it and I have to have a quick blat up the road, just to form some initial impressions. Thumbing the starter button brings a wonderful whuuumpf from the exhaust as the big V8 erupts into life but it soon settles down to a gentler melody. As per the regular M5 there are both auto and manual sides to the dual clutch transmission so I select the quickest auto setting and pootle off up the road. I'm not quite sure what I'm expecting but the first 500 meters demonstrates that this isn't going to be the uncouth, barely tamed muscle car that some might expect from a 600hp supersaloon. In fact, at normal speeds, and if you treat the throttle pedal with respect it's so calm, composed and discreet that you could almost be driving any 5 Series.

I have an exploratory run up the road and once I've confirmed that it's clear it's time to put the hammer down for the first time. The ferocity of the 30 Jahre's acceleration takes me by surprise - you really are forced back into your seat as the V8 bellows its approval and in the blink of an eye the seven-speed DCT is swapping ratios with just enough of a thump

to know that it's happening yet in a far more sophisticated manner than folk used to the previous generation's SMG transmission would be expecting. The speed with which the numbers on the head-up display are increasing is somewhat frightening and with the rear end firmly squatting into the Tarmac the road just seems like it's being dragged under the car and spat out behind it while the exhaust snarls and barks enthusiastically. With the speedo firmly buried in the zone marked 'licence loser' I call on the monster stoppers to wash off the majority of the speed which is something they do with alacrity all day long, thanks to the Carbon Ceramic set up with which this machine has been optionally equipped.

Returning to our photo spot I can't wipe the grin off my face and my only thought seems to be to get the pictures taken as quickly as possible so I can slip behind the wheel once more. Once we've cleaned the M5 I make myself busy spotting all the parts that are specific to the 30 Jahre. Up front the kidney grille





surrounds are finished in dark chrome, as are the side gill surrounds on the front wings which also contain a 30 Jahre M5 badge, as do the sill trim covers, and if this car was sporting a standard exhaust the quad tips would also be in the black chrome finish. The wheels are the lighter weight items that are also fitted to the Competition pack M5 and M6 and while they certainly help in reducing unsprung weight a tad, personally I think aesthetically I prefer the standard 20-inch alloys – these ones just look a little bit too 'bling' for my taste.

Inside the M5 there have also been plenty of changes with M Sport multi-function seats upholstered in Individual Black alcantara and full Merino leather and swathes of alcantara adorn the head lining, centre console trim and door trim panels as well as the rim of the multi-function steering wheel. There are more 30 Jahre logos too – the ones embroidered into the backrests of the four seat backs look classy and well executed, the one that's stuck







onto the dash trim in front of the passenger the polar opposite, appearing cheap, tacky, and on this 6000-mile example already starting to peel ever so slightly at one corner. It's an utter anathema on a £90,000 motor car — would it really have broken the bank to have a proper plaque à la Alpina?

Dash sticker apart it looks and feels a million dollars, but then it should do — the 30 Jahre Edition costs £18,000 more than the standard M5. For your money you get the paint, the bespoke interior, mechanical upgrades, 20-inch lightweight alloys and a smattering of items that are optional on the standard car fitted as standard, such as a Harman Kardon sound system, Adaptive LED headlights, Comfort Access, Driving Assistant and split folding rear seats. Of course there's still an extensive options list and 'our' car has an additional £22,000-worth of kit fitted, with two big ticket items accounting for the majority of that cost, the £7395 Carbon Ceramic brake set up and a BMW M Performance exhaust at an eyewatering £6890. Ouch.

With the static and detail pictures in the bag it's time to give the M5 a little work out for the action pictures and driving up and down the same piece of road several times for the camera allows you to push a little harder on each run and try out the car's different modes. It's devastatingly quick in full auto, but I soon flick over to the manual side of the gearbox which gives you the feeling of becoming a little bit more involved in the driving experience and soon I've dialled in the Sport setting on the suspension and gone full-on Sport Plus for the power delivery. The steering though remains in Comfort mode as I still prefer this to the heavier Sport settings. Where the car felt wonderful before it now becomes fully alive and is utterly mega. The throttle response is now razor sharp with the slightest pressure on the

pedal bringing more performance and in this setting the fully-titanium exhaust really sings, becoming more strident, louder and offering up more crackles and 'brummph' noises on each full-bore gear change. The suspension seems ever so slightly more focussed than in the regular M5, and the steering, dampers and revised differential really feel like they have been hewn from the same piece of material, combining so well to give you huge levels of confidence in the car's ability. All the while the V8 offers up a perfect muscle car soundtrack, egging you on, safe in the knowledge that the Carbon Ceramics can haul you back down to saner speeds time after time. As an all-round package this car really has it nailed.

On the cover we posed the question as to whether this was possibly 'The greatest M Car?' It's a tough question to answer, and comparing machinery from different eras is so subjective that it's almost impossible to come up with some valid conclusions. That it's faster is a given, as is the fact that it grips harder, too. It's certainly the most rounded machine the company has ever made – ungodly fast at times, yet quiet, refined and cosseting when you want it to be - as the consummate all-rounder it's virtually without peers. And for me it's the pick of the current M-car range. And it's for that reason I pull rank and toss Simon the key to my Passat, point the M5's nose towards the east and disappear in a flurry of wheel spin with the glorious exhaust note ricocheting off the hills. A glance in the mirror reveals a face looking so utterly dejected that I almost feel guilty for stealing Simon's weekend plaything. The M5's like that, it gets under your skin, goading you on to go for one last drive. If there was just one tank of unleaded left on the planet I'd be filling the 30 Jahre's tank and heading for Wales and the removal van duty would have to wait for another day







The German One of the control of th

Phil Chapman took a leaf out of the Germans' book when it came to transforming his E92 M3 into a track car capable of conquering the Nürburgring...

Words: Simon Holmes Photography: Chris Wallbank





he German way of tuning is very different to the UK when it comes to the Nürburgring," says Phil Chapman, owner of this E92 M3 track car. "Over there, they only really concentrate on three things; tyres, suspension and brakes. Power doesn't even come into it."

What Phil preaches is true, the UK tuning industry does seem to suffer from chasing sky-high power figures above all else a lot of the time when, in fact, it should probably be concentrating on the more relevant criteria our German friends are well aware of. It's a concept that often seems alien to us, though, to the point where some people in the UK have trouble believing what Phil tells them, but he very much practices what he preaches. "I was at a UK event and mentioned the car was capable of a 7 minute lap time at the 'Ring with a virtually standard engine, and I was told that it wasn't possible!" he tells us.

But Phil has done a 7min 30sec lap so safe to say

that he is a capable hand behind the wheel. He's no stranger to a fast car either, but the M3 is in an entirely different league and the story of how it all came to be started some years ago when he bought his first sports car. Logically, Phil decided that to get the best out of it he better learn how to drive it properly, so undertook some track driving tuition. Since then, he's spent many more hours behind the wheel on track and it wasn't long until he was making regular pilgrimages to the Mecca that is the Nürburgring. It was there he experienced a BMW for the first time and he was instantly sold on the brand after just a single passenger lap in an E46 M3 CSL.

Clearly it had quite an effect, as since then Phil has owned various respectable BMWs, including a couple of E46 M3 CSLs, a 1M Coupé, a 335d as well as a few X5s thrown in for good measure. He's also owned plenty of high end, fast cars, but none seem to make the same connection with him as a BMW. "I went from the CSL to a Porsche, but realised it was

the BMW I preferred," he tells us. "There's something I love about BMWs, all the ones I've had have been close to my heart, and I've had plenty of cars. Nothing grabs you the same way; they're so beautifully balanced and you know they're not going to bite you."

With his BMW background, the transition to an E92 M3 might have seemed obvious, and it was, but not necessarily for the reasons you may be expecting, as he explains: "My second CSL had a slight gearbox problem. I spent 18 months trying to get it sorted out and my dealership was very good, but it just couldn't get to the bottom of it. I was eventually told by someone at BMW head office that the CSL wasn't designed for track use! I then fell out of love with the CSL, but I would have another tomorrow."

The experience left a bitter taste and Phil ventured back to Porsche once again before realising he couldn't than turn his back on the brand he loved. So he began looking at an E92 and capitalising on the credit crunch at the end of the last decade, he picked



up this completely standard M3 with just 3000 miles on the clock back in 2008 for a very decent price.

Phil was instantly swayed by the DCT gearbox and the V8 powerplant. "How can you not like the engine? It sounds amazing!" he enthuses. But whilst the engine and gearbox were both huge steps forwards from the CSL he previously owned, Phil knew the chassis would need some dedication to unearth the best from it. "The chassis was amazing but it wasn't at its full potential. I always like to tweak my cars and track was always where this was going to end up. Suspension and brakes were the first things to come, but when I started modifying it, not many other people were so it was hard to try and find parts to see if they worked. It was a bit of trial and error and, at first, it was me guessing, so I went through a few different brake and suspension setups."

First on the agenda was to actually remove the factory fitted Electronic Damper Control. Whilst the system may be fine for road use, Phil quickly

discovered it wasn't quite so impressive round a track. "I took the EDC off straight away. With slick tyres fitted it freaked around a track, so I removed it and fitted a set of KW 2-way coilovers instead," says Phil.

Following the German way of tuning, next came a set of better brakes, but back when the E92 was still new and unfamiliar with tuners, Phil had no choice but to have a custom brake kit made up using Lamborghini callipers with custom bells and rotors. "Nobody had done it before, so it cost a fortune. It was great and worked really well, but the brake pad choice was too limited and expensive. The callipers used eight pads so it was costing a lot to change them, and around the 'Ring you change them regularly. So I've since swapped to an AP Racing kit just to get more pad choice and value."

The KW coilovers have also since been replaced, this time with a Nitron three-way setup. These were specially spec'd for the car by German tuner Schirmer Race Engineering, which has had quite an impact on

the car's development. You may not have heard of Tom Schirmer before, but for those in the know, his black E92 M3 track cars are legendary for being spectacularly fast and setting blistering track times. Phil first heard of Tom and his cars whilst at the 'Ring, but aside from whispers, it was hard to actually track him down. Eventually he did though and an outing in Schirmer's finely tuned E92 M3 demo car instantly confirmed he had found the man capable of developing his car to the next stage. "He's a hard guy to find but once I went out in his demo car, that was it, within three minutes I knew I had found the right person," Phil tells us. That same demo car has recently done a scorching 6min 58sec lap time at the 'Ring, in case you're wondering just how fast it is...

Phil ordered one of everything from the Schirmer catalogue, and after leaving the car in Germany, he picked it up a month later with huge, instant results. "It's just phenomenal. Around a track the car is mind blowing," reveals Phil. "When you feel it all come





"It's just phenomenal. Around a track the car is mind blowing"

ENGINE & GEARBOX: Akrapovic exhaust system, BMW Motorsport water pump, Tom Schirmer oil cooler, catch tank and large capacity carbon air box, Macht Schnell hard air box pipes, Schrick cams, Tom Schirmer setup and remap to 470hp

E92 M3 Track Car

CHASSIS: Nitron three-way race specification coilovers with Tom Schirmer spec spring and damper rate, Tom Schirmer Kinematic suspension parts, Drexler LSD with 4.1:1 ratio BRAKES: Front: AP Racing Pro 5000 six-pot callipers with GT4 motorsport bells, Performance Friction discs and pads. Rear: AP Racing Pro four-pot callipers, Performance Friction discs front and pads

WHEELS & TYRES: 10.5x18-inch and 11x18-inch BBS E88 split-rims in gold, 265/18 and 295/18 Pirelli Trofeo R tyres INTERIOR: Genuine M3 GTS half cage, Tom Schirmer digital oil and diff temperature gauges, Alcantara BMW steering wheel, Schroth endurance harnesses, Recaro SPG seats, Tom Schirmer seat mounts, genuine carbon trim **EXTERIOR:** Original DTM carbon fibre wing mirrors, front GT4 carbon lip spoiler with cooling pipes to front brakes and GT4 brake airflow plate, carbon diff cooler spoiler, original WTCC rear spoiler, GTS rear wing end plates, Aero Catches, towing straps front and rear, genuine BMW LED rear lights

together, it's hard to believe how good it is. The car feels so planted it's hard to explain without taking you out on a passenger lap. Its main advantage is that it can carry so much corner speed. It's set up to do that and it's the reason it's so fast without huge amounts of power. It wouldn't do so well at another track but I love the way it drives."

Schirmer's carefully selected chassis modifications extended to include a Drexler derived LSD and the wider BBS split-rims, measuring 10.5-inches at the front and 11-inches at the rear. Whilst both Team Schirmer and Phil maintain huge amounts of power isn't important, there have been some mild tweaks under the bonnet as well. A full Akrapovic exhaust system replaces the original items and it's complemented by a Schirmer designed large capacity carbon fibre air box, Schrick cams and a remap, which sees power around the 470hp mark. A notable improvement, but hardly huge amounts either.

Aside from what's lurking underneath, it's hard to ignore the fact the car has more than an air of

function over form outside as well, in a stealth kind of way. The various aero upgrades aren't there for looks as most are borrowed from an M3 GT4 and GTS so are designed to do a job. The menacing colour combination is no mistake either as although the car is track orientated, Phil always keeps in mind the overall look of things: "My job is branding so the look is everything and detail is important. I like the way it drives but from a parts point of view I love the look of the wheels and the wing mirrors."

Despite the looks and huge potential on track, the M3 is still road legal and was driven regularly. But it's now got to the point where Phil leaves the car at the Nürburgring to make things easier as he has other, better-suited cars to travel to Germany in and he visits the 'Ring once a month during the summer season.

Of course, you won't be surprised to learn that Phil readily admits he's gone further with the M3 than he ever intended to and the car is virtually unsellable now, but only because he's enjoyed it so much over the years he's had it: "I've had so many good

memories and experiences in it it's part of the family, the car's value doesn't really come into it anymore. It never misses a beat and it's always been absolutely faultless, even when I'm pushing the car hard round the track all day, from 8am until sunset."

Despite the well-honed modifications and hugely impressive lap times, for now, the M3 is actually going to be put to use as a kind of working mule car for Phil's next development; an all new car. Plans are afoot to take Phil's track driving to the next level, which means he will be competing in a Brit Car competition race next year. For that, he's building an all-new E90 3 Series with a planned 600hp on-tap and a curb weight around the 1100kg mark. The M3 will be using the proposed racing engine first of all and not one to do things by halves, he's looking at a Schirmer developed 4.4-litre conversion with parts shared from the M3 GTS in order to keep it strictly naturally aspirated. "The supercharged cars don't really work at the 'Ring," reveals Phil. "They get too hot." Sometimes it's not all about the power...



As we continue on the subject of wheels, we now take a look at the different types out there, from the plain and simple to the exotic and lightweight...

n this section last month we covered the fundamentals of wheel fitments and what aspects have to be considered when choosing a wheel for your car. So, the obvious next step now we have an understanding of what will and won't fit, and why, is the difference in types of wheel. We're talking wheel construction here, and it's a subject that ranges from the obvious to the more technically complex. We all know that some wheels are better than others, which is why alloy wheels were seen as an upgrade to steel wheels for many years, although it seems every car comes fitted with

alloys nowadays. But why are they better? And when it comes to aftermarket alloy wheels, why are some more expensive than others and can any wheel be used for any purpose, such as competition use? Then come the differences in billet wheels and what makes split-rims so unique from any other wheel.

Here, we will go over the differences in construction of each type of wheel, both original and aftermarket, cover their positives and negatives and the reasons why they are selected and suited to certain applications.



Banded steel wheels

You may well of heard or noticed that some modified cars use a steel wheel that looks original in its design but appears to be much wider than usual. This is likely a banded steel wheel, which is a regular steel wheel that has been widened. Although it seems to be more of a recent trend, banding steel wheels is no new thing. It's been going on for decades, most notably favoured by the hot rodders after the Second World War. The process requires a standard wheel to be cut into two and then a strip, or band, of metal is welded in place between the two sections. It is then welded back together again to form a new wider, single piece wheel. Because the wheel is made from steel, which is easy to weld, this is fairly simple to do, as long as everything is kept square so the wheel is true. The benefit is adding width to a wheel that will fit without any issues, with the major added advantage of looking subtler than many alloy wheels. With regards to safety, as long as it's been done properly by an expert who knows what they're doing then there is no need to worry and it's not illegal.



Steel

Steel wheels are the most basic, entry-level option. Often fitted to budget models, wheels made from steel are cheap, relatively strong and perform the task well enough.

Despite their one-piece look, they are actually formed from two pieces: the inner and outer sections are then welded together to form a single structure.

However, whilst a steel wheel does the job just fine, its credentials aren't ideally suited when it comes to outright performance, as steel is naturally heavy and unnecessary unsprung weight is the most undesirable kind of all.

Due to the nature of their construction, steel wheels aren't exactly that kind on the eye. In addition, their simple design is restrictive in than that it limits airflow and cooling both to and from the brakes and the lack of heat dispersion becomes significant after time.





Words: Simon Holmes Photography: Various



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Cast allov

This now seems to have become the most common type of wheel for any new car, whereas once it was a luxury option or extra reserved only for expensive cars. Alloy wheels are formed from molten metal that is poured into a mould and casts when it cools.

The metal itself is not solely aluminium, as the name alloy indicates a mixture of two metals. There are also different types of casting, which affects the

wheel's overall strength and finish and the range of casting processes vary from high-pressure moulding, counter pressure moulding and low-pressure moulding.

The key benefits to alloy wheels are their weight, as generally they are lighter than the equivalent steel wheel, but depending on the construction process, that's not always true. Due to the way moulds are made, alloys can be formed in virtually any shape or

style, making them more appealing to the eye. They are also much better at dispersing heat and that helps control the temperature of the brakes. The down side is limited to cost, which isn't so much of a problem now that alloys are more common. Strength is the final down side, as a majority of alloy wheels are softer, making them much easier to damage than a steel wheel and they are even known to fail completely under heavy impact.







Forged/billet

Although these look virtually the same forged or billet wheels are an improvement on normal alloy wheels. Both names are correct but mean slightly different things: billet refers to the single, uncast piece of solid billet metal (in this case aluminium) that the wheel is made from. The process of then forming the shape of the wheel by machining, pressing or rolling that metal is known as forging. Starting off with a single, dense piece of metal ensures the wheel is much stronger than a wheel that is cast from a mould, as there is essentially no weak points in its design. Made entirely from aluminium, these wheels are also tend to be much lighter than usual alloy wheels and for these reasons, forged wheels tend to be found on expensive modified cars or competition cars where these kinds of gains are acknowledged and appreciated.

However, the complex forming process makes forged wheels very expensive to construct, so the one down side to them has to be the cost factor. It doesn't help that only certain companies are equipped to manufacturer them, so options to choose from are limited and designs aren't quite so intricate as some cast wheels.









Split-rims

Split-rims are sometimes known as modular wheels, although both names give you a good clue as to how they are constructed, namely that the wheels are made up of more than one piece and can be literally split apart. Whereas steel, cast or forged alloy wheels are formed into a single piece, split-rims are constructed from two or three separate sections that are fixed together with a series of nuts and bolts located along the outside edge and designed to be split apart if required.

The benefits to split-rims are huge. First, there's the ability to alter the width by unbolting them and changing the size and dish of each section. This can also alter the offset, if required, making them ideal for any kind of custom application where the fitment might be a little unconventional, such as competition cars with very wide aftermarket arches. The second benefit is strength. The outer facing section, or lip, of a split-rim is often made from stainless steel rather than alloy, making it very strong and ideal for forms of motorsport, where an alloy could potentially shatter or fail.

The down sides of splits are minimal, the main one being cost. Split-rims are notoriously expensive, usually because they are custom-made for each application. Also, by their nature, they are fairly heavy - especially in comparison to a similar sized forged alloy wheel











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Tech Focus: BMW Diesel Engines

In the previous months we've covered petrol engines, which means it's time to detail BMW's portfolio of diesel engines...

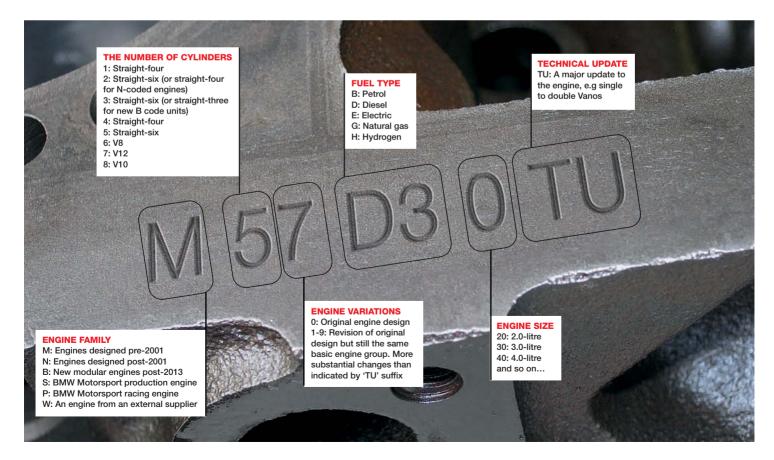
Words: Simon Holmes Photography: BMW

here was once a time when BMW was famed for its iconic straight-six petrol engines. But the natural evolution of development has meant that BMW has become renowned for its diesel engines too. At first, these weren't anything too special, but by the late 1990s the six-cylinder diesels were gaining a reputation for punchy performance

and the early sporting diesel BMWs were true game changers for the whole car world.

Since then, slowly but surely, the naturally aspirated straight-six petrol engines have made way for forced induction diesel powerplants that produce more power, torque and economy with less emissions. It's no wonder that diesels have become an unstoppable force and it's even more remarkable when you

consider BMW hasn't been developing the diesel for long in the grand scheme of things. The first oil burning engine was launched in the early 1980s and although there have been updates and overhauls, in comparison to their petrol counterparts, there haven't been too many all-new engines over the years. So here we can cover all the diesels, in their various types, formations and sizes, in one go...

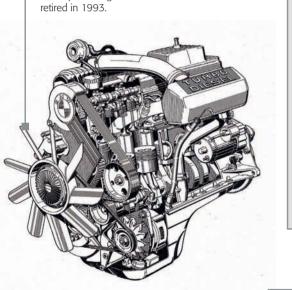


TECH FOCUS



M51

BMW's second attempt at a diesel engine arrived in 1991. Much like its predecessor, this six-cylinder came in one size only, this time 2.5-litre, but it was also only available with a turbocharger. More powerful versions were also fitted with an intercooler, known as TDS models. The M51 came fitted to the E36 3 Series, E34 or E39 5 Series and E38 7 Series models and ran all the way until the turn of the century, when it was replaced in 2000.



BMW invested very little time into the engine and it remained virtually unchanged until it was

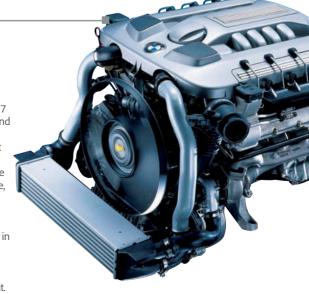
M21

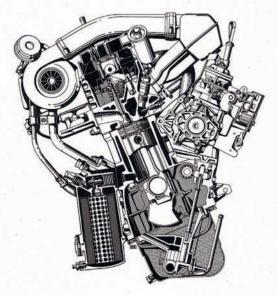
Arriving in 1998 and ending production nine years later, this straight-six engine could be considered BMW's first real step towards significantly developing diesel technology. It featured a 24-valve, double overhead camshaft arrangement matched to an iron block and either a mono- or twin-turbo set up. There were five variations including later Technical Updates that ranged in power levels with a 2.5-litre or 3.0-litre capacity.



M67

This was BMW's first, and subsequently only, diesel to feature a V8 formation. It was launched solely for use in the 7 Series models back in 1998 and was used right up until 2009. You might not have heard of it before as these V8 diesel models weren't available in the UK. It was an advanced engine, fitted with double overhead cam, 24-valve heads and featured common rail fuel injection. At first only available in 3.9-litre capacity, later came a bigger 4.4-litre version. The more powerful six-cylinder diesels replaced the need for it.





The M57 had paved the way for high performance diesel engines and the replacement straight-six N57 that arrived in 2008 capitalised on that success. It was of similar design, and came only as a 3.0-litre, but used a much lighter alloy block, common rail high-pressure injection and variable vane turbocharger technology. The hugely advanced and potent engine is still fitted to various current BMW models throughout the range and there are different versions to suit, such as the triple-turbocharged variation in the X5/6 M50d.



B57

The brand-new B57 is due to slowly start phasing out the N57 this year, and is so new BMW hasn't released any images of it yet! The 3.0-litre straight-six features a similar layout and single turbocharger, although advances may be seen later in its production. The B57 is part of BMW's new modular family of engines, which means it closely shares its design and many of its parts with other BMW engines of different sizes in order to save on costs.



M41

This was BMW's first fourcylinder diesel engine, introduced to the market in 1994. It shared a majority of its parts with the M51 six-cylinder diesel engine on which it was based, and so featured the same single overhead cam and twovalve per cylinder setup. The engine was only available as a turbocharged 1.7-litre and came fitted to the E36 3 Series models until it was replaced in 2000.



M47

Much like the equivalent sixcylinder of the same time period, the four-cylinder M47 was a huge step forward. It arrived in 1999 and all engines were turbocharged and featured 2.0-litre capacity with 16-valve, double overhead cam heads mated to an iron block. Later, through a TU, more efficient common rail fuel injection and more advanced variable geometry turbochargers were also introduced. The engine came fitted to various models from the E87 1 Series to the first generation X3 and ended production in 2007.





This is the first and only threecylinder diesel engine BMW has ever built. It is from the same modular family as the B47 and B57, so it shares many parts. The lightweight engine features common rail injection and a variable geometry, single turbocharger. It was first launched in the MINI, but has since started filtering through to the BMW range, starting with the 2 Series Active Tourer and later in the year, a 1 Series version will follow.

N47

This was a new and improved version of the M47, launched in the face-lifted 1 Series in 2007. It was similar in design and layout to the last of the M47 engines, but now featured an alloy block with cast iron liners. It was also initially offered only as a 2.0-litre and came fitted to virtually every small and

medium sized BMW, but a smaller 1.6-litre version emerged much later on for use in the 116d. All engines were turbocharged but some performance models featured twin-turbochargers. The engine is only just being replaced in models across the BMW range now.

B47

This is the latest and greatest from BMW to replace the ageing N47. It's a four-cylinder, turbocharged diesel, again with a similar 16-valve, double overhead camshaft arrangement and an alloy block. It currently comes only as 2.0litre but with varying levels of power to suit the model and it's notably more efficient and powerful than its predecessor. It's also part of BMW's new modular family.



F13 640d

The 640d encapsulated everything great about a modern diesel. Hailed as one of the most complete packages in the BMW line-up, used prices are now better than ever...

Words: Simon Holmes Photography: BMW

he 640d was a game changer. This was firmly noted in the press when the car was first introduced and the recent drop in secondhand prices which has now made them more accessible to the masses, has cemented its place in the history books

The 640d first arrived in the UK back in 2011 as part of the newly released F13 6 Series platform. The range-topping diesel was the successor to the previous 635d model, although the badging was a little misleading. Powering the 640d was the same 2993cc, six-cylinder, twin-turbo diesel carried over from the previous generation. The combination

provided a wholesome 313hp at its 4400rpm peak but more impressive was the huge wave of torque that accompanied it: 465lb ft at just 1500rpm. This equated to more than ample performance that would have worried most M cars ten years ago; a 0-62mph time of just 5.5 seconds and a 155mph top speed ensured that. But whilst it was able to decimate Tarmac with ease, its real ability came with the accompanying fuel economy and emissions, with a more than respectable 51.4mpg combined figure and emissions of just 145g/km. It was helped hugely by the new eight-speed automatic gearbox, (the only option available) and, coupled with the

huge torque, ensured the car was never caught off guard when it came to performance or economy.

Aside from the hugely capable running gear, the new 6 Series platform it was fitted in was longer, lower, wider and notably prettier than the previous 6 Series. It appeared to have matured into its larger proportions with grace, having gained a more slender look to its design. There was also more boot space although the fuel tank was the same 70-litre size carried over from its predecessor.

Inside was more lavish than ever, too. The overall design was more pleasing to the eye. There was a touch of elegance to its design, which now





and feel. The large centre console dominated the main cabin space and also housed the standard fit iDrive controller and a large 10.2-inch screen.

There was plenty else to be happy about as a new 6 Series owner, too, as standard specification was on another level of luxury. The Dakota leather trim was standard, as was the Professional Media Package with sat nav, ambient lighting, heated seats, electric folding mirrors, 18-inch alloys, xenon headlights, Bluetooth, cruise control with brake function, parking sensors (front and rear) and a sport multi-function steering wheel.

The range-topping diesel cost a mighty £62,080 new and trim levels were limited to just the SE and M Sport models – the latter costing an extra £4665. Unlike the half-hearted M Sport offering available on the previous 6 Series models, this time BMW did things properly and introduced a comprehensive package. As well as larger 19-inch M alloys there were also Sports seats, an M Aero kit, a different steering wheel, anthracite headlining and various smaller trim parts inside and out finished in dark chrome and Shadlowline.

By 2012 the official 62mph figure had dropped to

just 5.3 seconds, although power and torque remained the same. Drive Performance Control also became standard, giving the option of Eco Pro, Comfort and Sport modes, and in 2013 standard specification increased to include DAB. The 640d model still continues to run in the current range and the F13 Six has just received a mild face-lift, which means prices of earlier cars may well be due a further drop in the near future. However, there are already plenty to choose from, as good deals on finance and company car tax, due to the lower emissions, made them a popular choice. And best of all, they have shed most of their deprecation already.





Buying one

How does a 2011 640d for less than £24,000 sound to you? We found a 2011 example, an M Sport no less, for sale at £23,995, although the mileage at 118,000 might make you think twice. Admittedly, the cars with 40,000 or so less miles for just £2000 more in similar M Sport guise do make more sense in the long run. Better still, we found a 2012 M Sport model with 40,000 miles on it for £27,000 or, if you were less fussy about the spec and more fussy about the mileage, then we also found a more basic SE model with just 20,000 miles under its belt for the same price. A majority of cars sit below the £30,000 mark and for that budget there's a huge wealth of cars to choose from. After that sort of money you can get yourself a car that is less than a year old with less than 10,000 miles on it for £40,000 and above. You might also be surprised to learn that BMW's own approved

used cars are some of the cheapest on offer, with cars starting at £27,000. All have a one-year warranty and there are currently more than 100 available to choose from on its website.

There are a couple of things to bear in mind when trawling through the various examples on offer for sale. For a start, M Sport models are far more common but the ride is a little harsher on the larger wheels, so consider a test-drive in cars with and without the optional Variable Damper Control as you may well find it crucial. Plenty of models were fitted out with other handy options worth looking out for, such as Adaptive LED headlights, a Head-Up Display and Comfort Seats, so compare cars you come across carefully.

Otherwise, you should be aware of the general running costs; it's probably a lot cheaper then you might be expecting! Thanks to the low emissions,

road tax is only £145 a year for all 640d models, whilst servicing costs shouldn't be enough to scare you off either. At a BMW main dealer, an oil change is £152, whilst a full service will cost around £450. A set of front brake pads are £283. These prices are not much more expensive than a high performance 3 Series of a similar year. However, other running costs should be considered. Fuel is the main one, and although it can be very frugal, it's hard to get BMW's claimed figures. You should still see an mpg figure well into the 40s on a run, which will drop to an average overall figure nearer the mid-30 mark when driven with some gusto, or around town. Tyres are another thing to consider, as the 6 Series likes to run on big boots and it does tend to wear through them thanks to its performance and weight. Other than that, there are actually very few things to look out for, which we will cover here.

Wheels, tyres and brakes

All of the wheel options fitted to the 640d were big, starting with the 18s on the SE ranging to the 20-inch items on the later M Sport Plus package. Unfortunately, all of the wheels seem susceptible to damage from potholes, so inspect wheels for signs of serious damage or repairs, ideally from behind.

Run-flat tyres were standard on all 640d models but, as with other BMWs, there is much debate as to how much they affect road holding and ride comfort. As a result, many owners have swapped to non-run-flat tyres, which is fine except there is no spare wheel, so make sure you know what is fitted. Run-flat tyres should have 'RSC' written on them, which stands for 'Run-flat System Component'.

Brakes wise, the 6 Series likes to go through a set of pads, particularly at the rear as the traction control system applies the rear brakes to maintain control. Check using the iDrive screen to see when they next need doing.





Engine

The N57 six-pot diesel under the bonnet isn't actually a particularly new engine, having first been introduced back in 2008. However, that works massively in the 640d's favour. Earlier N57 engines fitted to other models were known to suffer from the odd fault but by the time the 640d came around in 2011, virtually every issue had been thoroughly ironed out, making these engines nighon bulletproof. Whether that will change as these cars get older remains to be seen, as older N57s are known for the odd turbo or injector failure, but

right now these don't seem to be an issue.

You should be aware that these cars do use a lot of battery power and due to the smart charging system that only charges the battery when it needs to, it is possible to get caught out with a flat battery if the car is only used for short journeys and then parked up for some time. A faulty battery will often cause all kinds of strange faults and error code messages to appear, so if the car does show any peculiar behaviour, always check the battery's health first of all.



Bodywork

There should be very little to look out for here, so just give the body a good going over for signs it's been well looked after in the past. Parking dents, smashed foglights, scraped paint and stone chips are all signs the car may well have endured a harder life than perhaps other examples have, and considering there are so many to choose from, you should try and avoid these kinds of cars unless the

price makes it worth it. Check to make sure the panel gaps look even all-round and look for signs of broken clips and bits of trim that may indicate the car has been involved in a crash of any kind. It's always worth HPI checking the car for peace of mind, unless the car is coming from an established dealer who has the paperwork present.

Also, if the car is fitted with the Park Assist option

then check that the external cameras work as they should, as they have been known to fail. They are located in the bootlid, door mirrors and front bumper and if the screen comes up with a 'camera malfunction' notice, then it's likely part of the camera's wiring loom has corroded rather than the camera itself being at fault. It's relatively easy to replace though.



Transmission and drivetrain

The automatic gearbox, along with the rest of the running gear, is very strong but faults have been known to occur with the shifting mechanism of the eight-speed. If it displays any trouble shifting between modes then expect to replace the shifter mechanism soon. Any hesitation or jerky gear changes at low speed are likely to be related to the adaptive throttle's self-learning program, which is designed to work with the gearbox to learn your personal driving traits. It's wise to reset this, which is done by turning the ignition on, pressing the throttle to the floor for 5-10 seconds or so and then releasing the pedal. You should then wait a couple of minutes before going for a drive. minutes before going for a drive.











Interior

Whilst the build quality is generally good, there may be the odd unwelcome squeak or rattle, and the front seats are particularly prone to this. If there's a light rattle from the passenger side then check for the simple solution first: that the belt buckle is not the cause. It should be covered in a soft material but this can wear off and cause a rattle. If the rattle sounds like it is coming from underneath the driver or passenger seat, and/or the seat feels in anyway loose with slight side-toside movement, then it's more serious. You might get away with greasing the front section of the underside of the seat, as this is likely the cause. If not, then the only other solution seems to be replacing the seat track itself, so prepare for a trip to the dealer. Electrical issues can also be a problem, although the Six doesn't share nearly as many faults as its 5 Series F10 brother. It's mainly the iDrive system that can cause issues, so watch out for a system that keeps rebooting or freezing, as although a software update might cure it, if you're unlucky it will need replacing.







Verdict

If you happen to have the best part of £30,000 ready and waiting to buy your next BMW, then there aren't many reasons why you wouldn't want to choose a 640d. Other than the physical size of the car, there's very little holding it back. What other three-year-old car looks this good, goes this well, offers this level of luxury with such reasonable day-to-day running costs all for less than half its original price?

Of course, depreciation is something to consider but the car has obviously done a vast majority of its value-shedding already, and considering you can be driving around in a current shape 640d for the same price as a diesel 3 Series, it's certainly worth thinking about...





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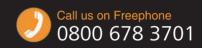
QUENTIN WILLSON'S VIDEO GUIDE

Watch as motoring expert, Quentin Willson, explains the benefits of a used car warranty.















LONGTERMERS



Elliott's lost his marbles and invested in another E28 Alpina, the 135i receives some further fettling, the M635CSi suffers at the hands of some crooks plus a round-up from the rest of the fleet

Alpina B9

As mentioned in last month's column HEX's battery was in dire need of replacement. When you don't get to use your classic car every day it's important to know it's in fine fettle and ready to go when the opportunity to enjoy it does arise.

A quick search on the Euro Car Parts website threw up a number of options at various price points and with varying specifications. Choosing a Bosch battery was an easy decision as it's a brand I recognise and respect and, rightly or wrongly, I thought a Bosch battery was more likely to stand up to the more infrequent use a classic car gets than a cheaper alternative. Several options were listed for my car though. A quick check of the existing battery spec suggested the old one wasn't really man enough for the job. You can see from the picture the difference in physical size of the two items. The new battery also has a

higher performance rating (cold cranking amps of 480 vs 380 and 56 amp hours versus just 40). Whilst I have little idea what that actually means, more is surely better? The price was a pleasant surprise, too: a very reasonable £64 including a three-year warranty.

While the battery was out it made sense to check and inspect the battery tray floor (solid) and clean and spray up the bracket that holds the unit in place. All easy stuff, but it's nice to get to work on the car rather than have a garage do simple maintenance jobs.

Needless to say the car fired up straight away and we were off to the seaside. I know it's not exactly the perfect location to take a classic car, as I doubt the sand is great for bodywork, but it was a sunny day and the kids love going out in the Alpina so I didn't take much convincing.

Having shamed myself into it in last

month's report, I'm pleased to confirm that I have finally got around to taking the car to my preferred bodyshop to get a quote for sorting the bodywork out. I was pleased they didn't laugh or faint when looking over the car although there was some sucking through teeth and rubbing of chins. The problem, as they rightly pointed out, is that you never really know what you are dealing with until you are too far gone into the job to go back. I was warned to therefore assume that some extra work would crop up over and above that which they would quote for. I do need some sort of a ballpark price to work to, though, as it's not a Ferrari 250 GTO - I can't just keep throwing money at it regardless of the cost. As I write this they haven't got back to me with a quote but I'm still hopeful they will be prepared to take the job on, fingers crossed.

The trip to the bodyshop also

spurred me on to tidy up a few DIY areas of the bodywork. In some respects it's pointless doing anything to it given it will hopefully be fully stripped back soon but I enjoy spending time working on the car and there were some obvious marks that were easily tackled. I've never been a great fan of paint touch up sticks but that changed this month when I discovered Halfords 'Scratch & Chip Repair Kit'. At just £8.49 it's a revelation. The kit comes with the usual primer, plus a 'keying' tool to prepare the surface prior to paint. The really smart bit, though, is the fine applicator tip. It's finer/thinner than a ballpoint pen and allows you to apply the paint with absolute precision. The days of large blobs of paint sitting proud of a stone chip are long gone. If you have stone chips and you've been planning to tackle them, then I highly recommend this product.

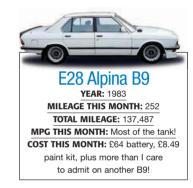












There is bigger news this month though! Regular readers may remember me talking about the often long-winded process of buying rare classic car models and how you have to pounce on an opportunity when it presents itself. I won't beat around the bush here - I've bought another B9! There must only be about ten B9s left in the country and, given I already own one of them, I wasn't going to miss the chance to add another to the collection. The story of how I came to find and buy it is completely bizarre (I prefer to think of it as fate) so I won't risk you thinking I'm having you on by recounting it here, but it's such a Sliding Doors situation I do believe it was meant to be. It involved a pedigree cat called Samson, a chance discussion with a neighbour and a motorbike.

The car in question is a 1984 A-registration manual gearbox

example, finished in Baltic blue and complete with its original Sytner numberplates. It is probably the lowest mileage B9 left of the original batch of 64 RHD cars with just 83,000 miles on the clock and one owner from new. To say I am pleased to have found it is an understatement.

As you can see from the pictures it's a true 'barn find' in the proper sense, having sat completely dormant in a barn for the past 12 years. It was taken in for some bodywork (it's an E28 after all) received some welding and then the money stopped being sent. It therefore sat there literally 'as was' with the car stripped down in preparation for a full repaint.

I am reliably informed by the guys who received the car all those years ago that it drove superbly and sounded fantastic. They don't usually drive customer cars but understandably didn't pass on the

chance to drive such a rare model when the owner offered.

The night before the collection was fairly sleepless due to the excitement and trepidation of what I might be getting. Whilst I had seen the car with my own eyes, it was so completely covered in dust and random car parts it was still a big leap of faith. At that point I didn't even know what colour it actually was!

Collection day was fantastic. The sight of the car rolling out into the daylight for the first time in more than a decade was hugely uplifting. Lugging all the parts down from the mezzanine floor of the barn was less so! It felt very rewarding, though, collecting all the parts one by one and ticking them off the missing list. I was especially relieved to be able to account for the Alpina specific parts, like the seats and front and rear spoilers, as they are impossible to find

on the secondhand market so could have created something of a headache had they not been there.

With the car and spare parts securely loaded onto the back of a transporter the journey home took all of two or three minutes - yes, the car really was that close by all that time. I told you it was fate. It was quite a contrast to purchasing my first B9, the ex-press car, where myself and a friend booked one-way flights to central France to drive a completely unseen car back to Blighty. It was an eventful trip but that's another story for another day.

With the car now safely tucked up and sharing garage space with HEX 991Y I need to formulate a plan fairly quickly so it doesn't just move from one place of rest to another, but first of all I need to stock up on vacuum bags and dust masks!

Elliott Stiling











M5's folding rear seats make carrying larger items, like these wheels, an easy job

F10 M5

This month my wife and I took part in the Blenheim Palace Triathlon. The M5 provided transport for us, our bikes and triathlon equipment, two children, a mother-in-law, and a picnic. It performed admirably, being comfortable for five on the journey there and back. Also, as it poured with rain for much of the day, it played the role of day tent and entertainment centre for the children. I was in the second wave of runners at 9.20am, while my wife was in the 18th at 3.30pm. This meant quite a bit of hanging around. The tablet DVD system entertained, and the interior took the hammering from two wet, mud-covered children surprisingly well - although a deep clean was required afterwards, including a carpet shampoo. At the end of the day the car whisked us all home again in the luxury of very hot, much-needed heated seats.

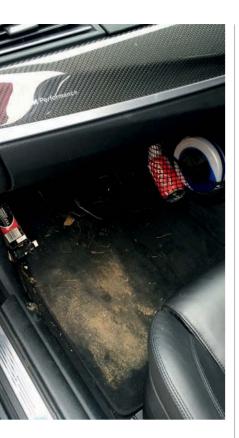
The bike carriers performed perfectly. They were easy to fit and use. They were quiet while in use with almost no noticeable wind noise or change in vehicle handling. At the end of the day it was quick and easy to remove the bikes, and the carriers from the car. I would highly recommend the BMW bike carrier. I only carry two bikes but apparently three can be comfortably mounted.

I finally got around to taking the M5 back to BMW to investigate the vibration under braking. It had been four weeks (and around a thousand miles) since I had the new brakes

fitted and if anything the problem was getting worse.

I dropped the car off on a Monday morning. I took a technician out for a test-drive and was easily able to demonstrate the problem. I left the car with them, and waited for their call. Just after lunch, they called to inform me that the brakes were warped, and that they would be replacing the front discs and pads. This would be covered by the new parts warranty on the brakes that were fitted earlier in the month. They also informed me that they had checked the hubs and wheels, and that these were within tolerance, and not responsible for the vibration. As the parts had to be ordered, the car wouldn't be ready for collection until the following day. This was fine with me, and due to other commitments, it was not until Wednesday that I picked up the M5.

I had some errands to run, so immediately after collecting the M5, I popped around the corner to a garage where my wife's car was being serviced. From here I collected four wheels and tyres that need new rubber. These easily fitted in to the M5 with the rear seats folded down. The amount of interior space with the seats down is impressive, and they are simple to fold and put back up. I had a round trip of 100 miles, from Swindon to Micheldever Tyres near Andover and back. Most of this journey was accomplished on motorway and dual carriageway. I was



being careful with the new brakes to ensure that they bedded-in properly, and was feeling a little paranoid after my experience with the last set. Over the course of the journey very little braking was required. Disappointingly, what quickly became apparent, was that the vibration was still there. Even gentle applications on the motorway, would have the pedal pulsing underfoot, and the steering wheel gently vibrating in my hands. I tried soft and firm braking, at a range of speeds, but the sensation was always there. Even allowing the cruise control to brake the car on the motorway would have the vibration making itself known. As a result, the car has returned to BMW for further investigation. As the vibration is only present under braking, I am interested to see what the culprit can be. There is some suggestion of steering arms or bushes, or of unbalanced tyres. As I write this, the car is still at BMW awaiting an answer.

David Ingram-Hill



F24 M635CSi

I'm going to have to keep my report this month relatively brief because if I think about it for too long I'm going to end up swearing. A lot.

A couple of weeks back I needed to get something out of the boot of the M6 and as I was approaching the car from the rear I just unlocked the boot, located what I was after and as I was closing the lid back down I happened to glance through the rear screen into the interior of the car and was surprised to see the hi-vis vest that had been in the cockpit for the European trip last month. The cogs in my head stared to slowly whirr and it occurred to me that this vest had actually been in the glovebox... and my next thought was why did I leave the glovebox open? The cogs started to whirr a little bit faster at this point as I know that I never leave the glovebox open, so it could only mean one thing: the car must have been broken into.

I quickly checked the side glass, as in my experience that's invariably the way cars get broken into, but when I'd established from where I was standing that all the windows were where they should be I had the awful thought that the would be thieves had damaged a door lock to get in. As irritating as a broken window can be it's a darn sight cheaper to replace than a door lock and associated panel damage but to my relief both door locks appeared to be okay. Which left the question of how on earth the car had been broken into! It

was only when I'd reached the front of the car that the way the windscreen was sitting didn't look quite right and then the flecks of dust and detritus I spotted inside made sense - someone had cut round the windscreen seal and removed the windscreen to gain access to the car.

The windscreen trims and seal were missing but it then occurred to me that there was actually more rubbish in the boot than I'd been expecting and in amongst all the other accumulated odds and sods I'd got in there I discovered the dechromed screen trims which had obviously been removed very carefully so as not to damage them. The cogs in my head were now whirring rapidly and my next thought was that the dirty little scroats were going to come back and steal the car. As this all happened late on a Sunday evening and I was due to be up with the dawn chorus the following day to go off on a shoot I needed a quick fix before I could get the Six moved the following day. I hastily removed the battery and let all the tyres down and disconnected a few bits and pieces under the bonnet - the only way they would get it now was with a flatbed equipped with a crane!

With the screen held in place with gaffer tape I drove the M6 rather gingerly to BM Sport the following afternoon and after having given it the once over the screen trims were deemed to be slightly too damaged to refit. Bottom line was that it

needed a new seal and dechromed trims which would come in at around £350, plus labour. It did appear that if I went directly to BMW Classic I could get the parts slightly cheaper but given I'm planning to eventually have the car resprayed I didn't really want to shell out for new trims now. I put a post on the excellent bigcoupe.com site and UK member Ron came to my rescue with a second-hand seal and a set of trims for a very reasonable sum - thanks Ron!

I've only just got hold of them and haven't had a chance to get them fitted yet but I also need to decide what to do about security before I bring the M6 back home. Renting a garage is a possibility but I'm also looking at getting a wheel clamp and a steering wheel lock. I may also have an alarm fitted. What I really want to do is wire the car up to the mains supply and see how potential thieves like 240 volts...

Bob Harper





LONGTERMERS





CONTACTS:

www.clutchmasters.com www.vr-speed.com www.forgemotorsport.co.uk





E82 135i

First of all, I'm very pleased to report that the new clutch and downpipes fitted last month have made a huge difference to the way the car drives. Now I've done some miles in the car, the clutch has bedded-in properly and I've finally had a chance to really push the car harder. I have to say, it feels ferociously fast now and there's just so much torque from so low down. How quick is it? I plan to find out, but put it this way; it didn't even feel sluggish after driving around in the awesome M5 30 Jahre in this issue, which is some testament!

Thankfully, the Clutchmasters-supplied fiber friction clutch kit seems to be lapping it all up with no trouble at all, so I no longer get clutch slip in the higher gears. Over the last few weeks the pedal's biting point has risen a little but it's settled now and although it is very slightly snatchier, it's not noticeable unless you spend some time in traffic. I genuinely think that's a small price to pay for a clutch that can actually take the car's full power without slipping.

I've not quite stopped with the

parts swapping just yet, though. Now the car is running at full power, other parts are likely to fail; after all, peak power is up around 100hp at this point. So it's time to fit the metal chargepipe from VRSF along with the Forge diverter valves I've had tucked away for some time. Both of these items are originally made from plastic and are prone to failing, but these replacement parts are constructed from metal and both look and feel much better quality in comparison.

After entrusting most of the work on the car so far to my good friend Clarke, I decided to embark on fitting these items by myself on the driveway one Saturday morning. It wasn't a particularly hard job but that didn't stop it taking a good few hours; it seems my time off from working on cars has slowed me down! To be fair, it was a bit tricky, as getting to the chargepipe required the removal of the usual scuttle panel plastics and wiper surrounds, as well as the air box and air intake. Then there are a few awkwardly placed clips, hoses and wiring plugs to contend with.

Once the old parts were removed it was easy to see why they tend to fail: they look very flimsy next to the replacements. I chose the VRSF chargepipe as it was one of few that featured take-offs to keep the standard type diverter valves, so everything fitted back together pretty easily after tightening up the supplied jubilee clips.

The diverter valves actually come supplied with different strength springs to ensure they open and close at the right times but I was unsure which springs to use, so I rang the guys at Forge beforehand for some advice and ended up buying a nifty little item the company usually supplies for Nissan GTR owners. Forge's clever Intake Pressure Compensation Valve (IPCV) is ideal for cars such as mine with adjustable turbo boost pressure settings, which can cause drivability and response issues for diverter, dump or blow-off valves. The problem is a harder spring is required for more boost and, ideally, a softer spring for less boost. It's not practical changing springs

regularly, so this IPCV constantly regulates and evens the amount of pressure the diverter valves fight against. It does this by taking a pressure reading before the intercooler and ensuring the pressure is always higher than the valves can see. This means that drivability doesn't suffer from having super strong valves in place, making it well worth the £103.95 asking price. Fitting was super simple, too.

With that done, it was then just a matter of putting everything back together. Without looking carefully, there's not actually a lot to see when everything is back in place as all the replacement items are finished in a crackle or gloss black, which I actually prefer as it all still looks standard under the engine bay.

Everything fitted straight up without any problems and once connected it was time for a drive. There's definitely an improvement to throttle response now and the sound hasn't changed, which I'm happy about as I didn't want anything that attracts attention!

I paid for the parts some time ago,

F20 118d Sport

Having finally managed to book the 1 Series in for its Oil Service I trundled over to the Steven James Ruxley garage - my first time using this dealership as our handy local one recently closed. Pulling into the large parking area I was directed to a parking spot by a beaming chap in a suit with a clipboard. Having deposited the 118d in a space, I then returned to the smiling young man who had already taken a note of my numberplate and knew what the car was booked in for as he escorted me into the main building. The guys on the service desk were very friendly and quickly ran through what the car was in for before I signed off the work and settled down in the waiting area.

I'd requested a 'Fast Lane Service' (just called 'While You Wait' on the invoice), which the BMW site states aims to get you back on the road in 90 minutes, though that's obviously a ballpark figure and the guy on the service desk had told me it would be a couple of hours, which was fine with me. Obviously there was a TV, the usual hot drink facilities and some comfy chairs, all very nice and as you'd expect and my phone and Bargain Hunt kept me entertained for the ensuing 90 minutes, after which I began checking my watch to see whether the 1 Series would be ready within the anticipated time. At the two hour mark one of the service team came over to inform me that the car was being washed and would be ready in a few minutes and I was actually in the car and ready to go just 15 minutes later. I'd say that's pretty good service. I did notice on the invoice that the dealership offers a free collection service and a station shuttle service, so perhaps I'll look into one of those options if there is a next time

The final invoice listed the Oil Service, pollen filter change, my requested air-con service and the cost of a replacement rear wiper blade, which had been damaged previously. All this came to £372.31, which I suppose is not bad but makes me glad it wasn't coming out of my pocket as the 1 Series is a company car and on lease, so Unity picks up the tab. It reminded me why I use specialists (BM Sport, my specialist of choice, quoted me £288.39 for the same by comparison) and made me think about Service Inclusive. A glance at the BMW site shows that this costs £425 for five years – the 1 Series has done just over 16,000 miles in just over two years and is a on a threeyear lease. It's unlikely to need another service in the next year, so with my mileage and ownership period, Service Inclusive wouldn't likely have made sense. Turns out that I'm covering what is now the average mileage according to reports from last year, so if I was doing a lot more miles or was planning to own the car for a period of five years, I think Service Inclusive would have proved a worthwhile investment. I guess you

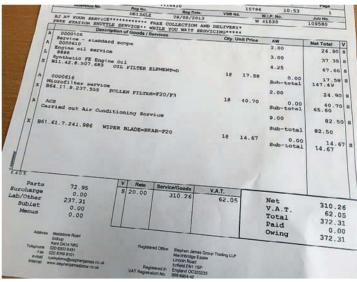
shouldn't assume that Service

Inclusive is a must-have when purchasing your car and it definitely makes sense to weigh-up the pros and cons before committing.

I will say that it's nice to come away with a clean car, and while I know no garage offers the sort of delicate valet service that we as car enthusiasts would like, for someone like me who doesn't own their car as such, and who has another car that gets all the TLC, it suits me just fine to see it clean and shiny.

Elizabeth de Latour









but a quick check over the receipts showed the diverter valves were £233.26 and the chargepipe worked out at £225 delivered, with all import duty paid. For the money, it's well worth the peace of mind knowing I'm not about to break down due to a flimsy bit of plastic.

So next up is a trip to the dyno and then, hopefully, an outing to Santa Pod Raceway...

Simon Holmes







F30 320d Sport

What's the daftest thing you've ever done either in or with your car? Been clocked at 100mph or more? Perhaps you fitted a set of tasty alloys, marvelled at the improved aesthetics then later claimed the resultant harshness introduced into the ride was intended 'sportiness'. Did you get sucked into the decals and sticker set, or, back in the day, lived out your Stig Blomqvist fantasies by fitting a set of over-sized Cibies and imagined yourself hammering around Kielder?

I bet you've never attempted to remove bird guano with a scouring pad though have ya, eh? As idiocy goes, you'd have to be pretty stupid to attempt such lunacy, right? After all, these things are designed for use in one's grease-infested kitchens, not for our cars. Why on earth would somebody who cares for his car think this is a good idea?

I've been to the US this month (good food, good natured people to the point of being annoying, Virgin Atlantic are still the best way of getting there and back etc) and was dismayed upon my return to spot several spots of welded-on poop splattered all over the roof. Darn. Worse, it had clearly been there for days and as the car was on the drive in full view of the morning sun, it had slowly baked itself into the paint, and would therefore require furious scrubbing to remove.

Now at this point, the sensible thing of course would have been to venture indoors, fall into bed and sleep off the jet lag. But no. This particular cretin decided to clean it off then get some sleep. So, out came the hose and the bucket, along with some shampoo and a sponge. I set to, cleaning the entire car, paying particular attention to the roof. I didn't even use warm water for crying out loud, an obvious fact which didn't occur to me until later when the full horror presented itself. Anyway, let's not get ahead of ourselves.

The cake wasn't shifting. At all. Even with our newly pressurised water, at best only a few tiny globs where being persuaded from the roof. Newly pressurised? I cannot recall if I've mentioned this previously but we've suffered through poor water pressure via the outside tap over the last couple of years, even to the point of having a whinge at Thames Water. Turns out the low/high setting on the hose had been set to, er, low. And I simply hadn't noticed...

So, what to do? I tried really scrubbing with the sponge. Didn't even touch it. What on earth do these creatures feed on? I then got hold of the squeegee one uses during the winter months to scrape ice from the screen, employing the rubber strip on the underside, but all that did was send dirty water over the roof. And again, I really should have given up and gone to bed, later facing the problem with a clear mind.

I returned indoors. And there it was. A scouring pad on the side of the kitchen sink. Used, a little worn and therefore, I hypothesised, not quite as severe as a new one. You have to admire the logic at work here, don't you?

Back outdoors, I got it nice and soapy and, gingerly at first, applied circular motions with a little pressure to remove the stuff. Ah ha, success. It came off, easily at first but then slightly more reluctantly. The Jet Lag Devil was hard at work by now, though, so I simply applied pressure, then a little more. And then some more. And... aha! It's was all off! I washed, rinsed, and it looked okay. Of course it did because – as everybody always says – you shouldn't look at cars with wet bodywork, right?

Chamois applied, the full impact was finally visible. The bottom line is a load of swirly scratch marks which, at best, will require the services of a good valeter to remove or, at worst, a company like Revive! to attend to, probably with a little amusement and several 'what a muppet' private thoughts. And if Revive! do come to fix it, I can also get them to repair that kerbed alloy which I scraped in Lavenham over a year ago...

Perhaps I'm still jet lagged, as it's just occurred to me as I sit here writing this, that one of our neighbours clatters around town in an old Ford Escort van with the words 'mobile valeter' written in large letters



The Everett Fleet

A few things to report this month: the Compact Ti is finally on the road. taxed from the beginning of June and unlikely to do more than 1000 miles this year as part of its very well deserved retirement. It had been pretty much finished since March but too many other cars and projects saw it gathering dust. May saw it being taken to the very good KwikFit around the corner where MoT man Chris passed both the Compact and the blue 318i Convertible with flying colours. The Convertible needed the inevitable front flexi-hose and there was a tiny bit of play in a front ballioint. I replaced both of these advisory items within a day or two. The Compact, though, needed nothing at all.

On its first outing – the 2015 Classic Car show at Renishaw Hall, near Sheffield – I'd forgotten how lively this car is. Not fast, but on full throttle it zips round to 6000rpm nicely. The Z3 short-shift and M Technic suspension (all renewed a couple of years ago) makes it drive really well whilst the Daytona violet colour looks great in the sun.

The 318i Touring now has a new diff. There was nothing wrong with the old one but with a 3.45 ratio it was a bit under-geared; at a steady 75mph it ran at over 3750rpm which could be quite tiring on a long trip. I had just acquired a load of virtually free E36 bits including some new front discs and pads (now on the Convertible) and a 318tds diesel differential with a very tall ratio. E36 diffs are an easy enough swap and after an hour's work the new diff was in.

Blimey, what a transformation. First is now good for 25-30mph, second will stride up to about 55mph and third gear is about where the old fourth was. Fourth gear is actually

taller than fifth used to be, and fifth is good for 27mph per 1000rpm (70mph is now 2500rpm). I had assumed that the ratio was 2.79:1 as the 325tds was 2.56 but in fact this 318tds diff is a 2.65 so it really is very leggy. Really, a diff ratio of around 3:1 would be perfect but BMW didn't do a small casing diff in a ratio like that.

It all sounds good but whilst it still goes okay, I'm still getting used to it as it's easy to be in the wrong gear. The M43 1.8 has decent mid-range torque but even so. On a 450-mile trip that included local driving, open A- and B-roads plus some motorway work the car returned a 38mpg average - not much less than my last 320d E46 would do. I reckon on a long motorway trip at 70-80mph it would be in the low- to mid-40s not bad for a car without Vanos or other modern technology.

Andy Everett





down the side. So at some point over the next week or so I'll pop round and knock his door and see what his impressions are. Providing they're printable, more on this next month.

Finally, if you would like to see a video review of the i8 which was featured in last month's issue of BMW Car then plead head over to my YouTube channel. Comments, good or bad, are welcome. And, no, I don't expect to be the next presenter on Top Gear.

Mark Williams (@QuentlyBentin)









Interior now fit for the car's first track day thanks to Cobra seats and belts and some general tidying up. Below: Hub-centric rings for E39 alloys

E36 318iS track car project

With the bones of the car all done, attention can now be turned to the bits and bobs needed to finish it off ready for its first ever track day at Cadwell Park with the BMW Car Club.

The first thing we need is a seat. Standard seats are okay but you can't beat a proper purpose-made seat and the one I chose was the Cobra Monaco. It's a very good budget seat that retails for under £200 and for that price there's no point in messing around with secondhand stuff. I looked at various used seats on eBay and most of them looked like they were fit for the skip. So, choice made, I drove over to Cobra's HQ in Telford and bought one there: problem solved. As for mounting brackets, the Monaco takes both base and side mounts and on the E36, there is a known problem with seat mountings. For some reason, the E36 has seats that have offset mounts so if you used standard mounts, the seats would sit skew-whiff to the pedals and steering wheel. There are various solutions to this and by far the best one is the seat mounting kit as sold

by BMW competition specialist Automac (0844 288 6622). These allow a huge range of seat positions and are superbly made and very strong. At £85 for the pair they're good value. They bolt directly to the Cobra seats with allen bolts and from there to the standard E36 seat bolting points on the floor. I used old BMW M20 cylinder head bolt washers to spread the load a little more than the standard bolts and thin washers and after a few attempts to get my ideal driving position got it spot on.

Next up to do were the harnesses. These were new Cobra items from Automac and were easy to fit. Sadly, the eyelets provided don't screw into the front seat belt mounting holes as the threads are different. This meant a different plan of attack. As this is a track car and not a scrutineered racer you can be a little more creative as long as the finished harness is safe. For the driver's side lower strap, I refitted the long steel bar the standard E36 lower seat belt fixes to and simply clipped the lower strap to this. It's strong enough to take the load of













a standard seat belt. For the other side. I had to drill a hole in the transmission tunnel and with assistance, held the threaded spreader plate on the underside whilst I wound the eyelet in along with a decent fat washer. The steel in the tunnel is quite thick so should be strong enough. For the shoulder straps, I was tempted to use the factory rear seat belt mounting holes, but these are down on the rear seat pan and mean that the shoulder straps are not at the best angle of 90 degrees. So, removing one of the wrongly threaded captive nuts on the rear shelf, I used another threaded spreader plate and had both shoulder straps going straight back from the seat and into a single eyelet in a nice double skinned section.

Before any of this could be done, though, the interior had to be stripped of all sound deadening. I established that the best tool for getting this stuff off is a one-inch-wide wood chisel and a hammer. In total it took me about two hours to get it all off. Well, I say all but it's such gruelling work I

left the stuff stuck to the tunnel. Similarly, I couldn't quite see the blister on my right hand getting any smaller or lap times reducing much by getting it all off the boot floor either. So with discretion being the better part of valour, I cleaned and hoovered it all out before doing the complete interior with three big Halfords cans of satin black. Job done. On the E36, the floorpan is very deep by the pedals and it needs to be made level again by the use of some alloy checker plate. I bought an offcut of thin gauge plate for £10 and cut it to size with a slot so that it fits around the throttle pedal. It's important to do it this way to prevent your heel being caught on the edge of the plate. The inner parts screws straight down into the floor but I had to make up a couple of L-shaped brackets on the outer edge, screwing these to the inner sill and then the plate directly down onto these brackets.

The sunroof cassette was removed early on, the sunroof panel separated from the rest of it, and that panel lightened by cutting the inner frame

out. It was then secured to the roof skin by alloy plates riveted to the inner roof skin and the sunroof panel lowered in, riveted to these alloy plates and then seam sealed. A scrap E36 donated a non-sunroof headlining that, once sliced in two just behind the sunroof, was fitted in place to cover up the inner sunroof. In the end, both electric front windows were kept functional but a pair of old grey door trims were divested of the cloth inserts, door bins and painted black before being fitted. I really can not stand seeing the door innards in a cheap track car and, besides, the trims weigh next to nothing.

The last lightening jobs were to remove any unnecessary wiring and to refit the glovebox lid. This was removed from the glovebox assembly and fitted to the dash with two screws and some tiger seal just to tidy up the interior and, as it only weighs a few grams, the front section of the centre console was refitted. To finish off the interior I chose an OMP GP steering wheel from Demon Tweeks, along with the relevant boss. I rewired the

horn into a small rocker switch by the gear lever to satisfy an MoT tester. If anything the OMP wheel is a tad too small at 300mm in diameter which means that it obscures the upper parts of the instrument panel and could do with being just a big bigger; 320mm would be ideal.

Almost there now! Demon Tweeks also supplied bonnet and boot catches - pins for the bonnet, and rubber straps for the boot and these were easy enough to fit. And, with that, the car is just about ready. Test driving revealed that the rear tyres are fouling the arch lips so back at base it was jacked up, the rear wheels removed and the arch lips hammered flat with a big ugly hammer but without disturbing the outer arch lip or paintwork as I want it to look smart and not the kind of drift-style wreck that attracts attention from the law. After another test-drive the issue was finally resolved. It now looks and feels fine. All we need now is to find a suitable track to try it out on - more of that next month.

Andy Everett

E53 X5 4.6iS and 4.8iS

Fancy buying yourself a big, V8-powered early X5? They don't come any bigger or better than the iS models and now could be a prime time to bag yourself one...

Words: Simon Holmes Photography: BMW



History

The first generation of X5 arrived to strengthen the BMW range in 1999. Immediately its sporting credentials were warranted with a petrol V8 version in the form of the 286hp 4.4i. But in 2001 a larger 4.6iS version was launched to satisfy those wanting even more grunt from their new Sports Activity Vehicle. This time it was powered by the newer M62 V8 engine, producing 347hp and 354lb ft of torque, a substantial improvement over the previous 4.4i version. It allowed the X5 to become a truly capable road car, posting a 0-62mph time of just 6.5 seconds, accompanied with a 149mph top speed. To match the sporting nature, the iS designation received huge 20-inch wheels, an aero

kit, twin oval exhaust tailpipes and a sports suspension package. Priced at £54,000, it was also packed out with high standard of luxuries such as Nappa leather trim, a ten-speaker stereo, xenon headlights, parking sensors and plenty more.

As if the 4.6iS wasn't quite enough, in 2004, with the introduction of the X5's face-lift came an even bigger capacity, more powerful V8 version: the 4.8iS. This time the older M62 engine was replaced with the new and improved N62 V8 that featured technical upgrades and, together with an extra 200cc on tap, power jumped to a mighty 360hp and 369lb ft of torque. Performance also took a notable leap forward as well, with 0-62mph now

arriving in just 6.1 seconds with a top speed of 153mph to back it up. The bigger and better 4.8iS now cost £58,000 but you did get more for your money. Specification was similar to the previous iS model, so the big wheels and sports package was retained, but the X5 now featured a more complex variable xDrive four-wheel drive and self-levelling air suspension with sports settings.

All V8 models came with an automatic gearbox only and full-time four-wheel drive, which meant they handled very well but were also notoriously thirsty. In the UK sporting V8 X5s have subsequently been sold in very small numbers with owners shifting their allegiance to the big diesels.



Why should you buy one?

The older X5 is slowly maturing into an icon and it will be the big V8 models that will become rarer and more valuable as time goes by. If we're being honest, the 30d version makes the most sense if you plan on using an older X5 regularly. But there's something about the big, petrol V8 versions that's a lot more appealing. These cars were the last of their kind, a dying breed that has since been replaced by big power diesel engines that lack the same pedigree of these now retro, V8-powered monsters. It's not a car that will be cheap to run, but it will be a lot of fun, as long as you're not using it to commute a few hundred miles everyday.

Running costs

As you might expect, this isn't an area in which an X5 with nearly 5.0-litres of V8 engine under the bonnet will excel. For a start, there's fuel consumption to consider. It would be foolish to suggest that the V8 X5s are light on fuel, and whilst they aren't bad on a steady run, don't expect miracles here. There's little difference between the 4.6-litre and 4.8-litre versions and, on a good day, expect to see an average figure around the 15mpg mark. On a steady run, it is possible to see low 20s.

Thankfully, road tax is less of an issue. Being an older car, all of the first generation X5 models fall into the same category, so both the 4.6iS and 4.8iS cost £290 a year to tax. When it comes to servicing, from a main dealer an oil service for a V8 X5 is £169 and an Inspection II service costs a fairly reasonable £459, whilst a replacement set of front pads are £249.





E53 X5 MODEL: 4.6iS 4.8iS ENGINE: V8 petrol V8 petrol CAPACITY: 4619cc 4799cc MAX POWER: 347hp 360hp MAX TORQUE: 354lb ft 369lb ft 0-62MPH: 6.5 secs 6.1 secs TOP SPEED: 149mph 153mph ECONOMY: 19.0mpg 20.9mpg



How much to pay?

Right at the bottom of the market we managed to find a 2003 4.6iS that was HPI clear and with 140,000 miles on the clock for a bargain £3195, but that does seem like the exception.

As a general rule of thumb, nearer the £5500-6000 mark will give you a choice of 4.6iS models, although the majority of them will have above 100,000 on the clock. Examples with less miles tend to command nearer the £7000 mark and go

up from there for really nice, low mileage cars.

When it comes to the 4.8iS, there are actually more around than 4.6iS models as it ran for a longer period. Prices start a little higher and you will need £7000 in the bank to look at the cars at the entry level, although there are a couple with very high miles for less. Low mileage cars command a premium, expect to pay above £8000 or so, and a real low-mile minter will command over £10,000.

What goes wrong?

X5s seem to avoid rust well but plenty of examples seem have lived hard lives and so look tatty around the edges. Check carefully for any signs that the car has been mistreated in the past. There are still good ones out there and they should be obvious to spot. It's a similar story inside as well, as many X5s were put to use as family cars, so the interior takes a battering, although it usually wears it well. Check to see if the electric windows move quickly: a slow moving window indicates a regulator is about to fail.

Both the M62 and later N62 V8 engines have proven to be generally very strong units, with few faults aside from the odd sensor or coil pack. However, a coolant leak from the later V8 could quickly become expensive as it's usually down to the hose at the back of the engine and the labour involved to change it is hugely expensive. Otherwise, coolant systems in general tend to decay over time, so check the expansion tank, hoses and radiator are all in good form.

The automatic is strong, but there have been cases of failures. If it's displaying any strange tendencies then the first thing to check is that the fluid isn't low. If it is, then it causes strange symptoms, so make sure there isn't a leak. Similarly, a flat battery will cause the transmission to come up with a warning message that will need resetting.

Suspension is the main thing to worry about as the X5 tends to knock out ball joints, bushes and CV joints fairly regularly. You may have noticed the amount of X5s that exhibit heavy inward rear wheel camber. This knocks out tyres very quickly, and being 20-inch in diameter this can be expensive. Ensure the car is sitting level and the wheels sit straight in the arches, although a little camber is fine. The 4.8iS features air suspension, so make sure it's working, that the car sits level and that it doesn't make any strange leaking noises.

Finally, X5s seem to love going through discs and pads, thanks largely to their sheer size, weight and performance. It's not too expensive to replace them but check to see when they were last done.



Verdict

It should be obvious that the first generation of X5, particularly the 4.6iS or 4.8iS, is no longer a viable daily car to travel around the country in. Make no mistake, taking on an ageing X5 will not be without its problems or its costs. However, driving round in a large, V8-powered X5 is still quite an experience and it's a lot of fun to drive and own. With rising petrol prices and road taxes it's becoming harder to warrant cars such as these and with secondhand prices currently so low, now could be the best time to buy one.



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i8 drop-top

Fair play to BMW for releasing the i8. I've finally seen one on the road for the first time and I have to say, they look just as good and have just as much road presence as any Ferrari or Lamborghini. But having checked over the stats, when will BMW have the guts to actually build one with proper supercar performance to take the fight to the Italian brands and back the looks up? Also, wasn't there plans for a Spyder version or am I dreaming that up?

Shaun Reffold

The i8 looks wonderfully unique out on the road, you're right, but remember it's no slouch in standard form. There are rumours of a big engine version in production, but we're not sure how true that is at the moment. Installing the M5's twinturbo V8 in the rear would definitely make it more interesting! As for the Spyder version; don't hold your breath. We understand the chassis isn't able to cope without the additional strength provided by the roof section.



Wheel woes

I thoroughly enjoy the magazine. You keep us up to date with the latest in all things BMW but you don't forget the older stuff either. It's apparent that you go to great lengths to find and review interesting older cars. I also like the fact that you seem to keep the number of adverts down and those that are included are appropriate, thank you and well done!

Anyway, I'm writing to you as your article on wheels in the July issue caught my attention. I have a lovely original 2003 E39 530i SE with just 90,000 miles and I sometimes notice a wobble through the steering wheel (I know this can be a problem as I had two E39s from new and they used to do it once they had a few miles under them).

Whilst recently having a new set of tyres mounted, the fitter pointed out that the offside front wheel was a 'sloppy' fit on the hub. Swapping the front wheels around to check if I had an incorrect wheel showed the wheels are okay; it is the hub that is undersized! The car is as it left the factory (it has BMW style 32 17-inch wheels), there have been no upgrades or modifications and I have owned it for five years and done half of the miles. I wonder, is it possible that the car left the factory with the wrong hub? Did BMW make a car with a smaller hub and if so could one of those spigot rings you refer to remove the play between my wheel and hub and thereby help to reduce wheel wobble? Thanks for any help/suggestions.

Jon Pierce



Thanks for the kind words. With regards to your wheel situation; that's strange! If the fit was snug with either wheel on the other side then it makes sense that the hub is at fault. But what makes it stranger is that the E39 was one of the only BMW models ever built with a different sized centre bore, which was 74.1 mm, whereas virtually every other BMW built in the last 30 years came with a 72.5mm centre bore. We've not heard of hubs being interchangeable with another model for an E39, but it could be possible. Even if possible, it's unlikely to have been done at the factory – at least we've never heard of anything like that. It's more likely to have been replaced at one time or another

since, possibly during a repair.

The only other possibility is that the wheels are replica, non-BMW items, which would have a universal, larger centre bore and previously used a spigot ring to decrease the bore size. That would mean one is missing on the wheel that is loose and on the other side the spigot ring has welded itself to the hub so it's unnoticeable, which is unlikely but we've have seen happen before. Perhaps you could measure the wheels and hub with a vernier gauge to see how much slack you're talking and go from there as it is possible to get a spigot ring in virtually any size, as long as there is enough space, eBay is a good place to check what's out there. Good luck!



More of the same

I read with interest the letter from Mark Jackson about his experience with BMW franchised dealers when looking for an M5. I thought you might like to hear my recent experience when looking for an F30 330d xDrive M Sport.

I'd been looking for several months for a car matching my ideal spec at a price that suited my budget and was using the BMW AUC website with daily alerts being emailed to me. Eventually, a car turned up at Lloyd Carlisle albeit with no photos. I contacted the dealership to request a video one evening. This was responded to the next morning, the video arrived and was followed up by a phone call later in the day. The car was just over two years old with only 12,500 miles; the dealer was upfront and mentioned a couple of scuffed alloys which were already in the process of being refurbished

and one or two minor stone chips. We discussed a trade in for my much-loved 2006 E90 330d SE over the phone and after some further negotiation, we agreed a mutually agreeable cost to change subject to an inspection.

The salesman agreed to hold the car on payment of a fully refundable deposit in the event I decided not to proceed for any reason; given I would be travelling over 100 miles, this was important to me.

My wife and I went to see the car, which was immaculately presented, and we were allowed a decent test drive. We were treated with courtesy and respect throughout with refreshments provided. I agreed to buy the car, the salesman sorted out taxation there and then, organised plates for my cherished number and sorted out all the paperwork. We drove away two hours later with a fabulous car,

which I love, and a nice bottle of wine and box of chocolates to boot. In the great scheme of things these are small tokens but welcome nonetheless.

Of course, people have very different experiences and certainly reporting instances of poor treatment is really important but I hope that my own recent buying experience was not an isolated one.

Graham Lillis

Combined with Patrick's below letter it's really nice to read responses like this Graham as it restores faith! Just when you begin to lose hope, it appears that perhaps Mark Jackson's experience was the exception, rather than the rule. At least we hope so!

Better bet

In the June issue, Robin Hurt mentioned London's plan to ban diesels. I hadn't heard this before, but, if true, do we presume black cabs will be exempt? I refrain from further comment on yet another ill thought-out idea...

In the same issue, Mark Jackson commented on customer service levels in BMW dealerships (woefully lacking in some cases it would seem), and highlights the situation where his friend purchased a March 2013 F10 M5, and on the way home on delivery day, discovered the air-con wasn't working.

I have a similar vehicle and did not have occasion to use the air-con until I'd owned the car for some months. First time tried – it didn't work. I have to say I had very satisfactory treatment from my local dealership, and the condenser was replaced under warranty without question. It does make you wonder about the so-called quality of

parts fitted to premium vehicles though. Both of us should never have experienced problems of this nature on low mileage, newish cars. I'm also sceptical about the 120/160 point check.

For the benefit of other F10 M5 owners who are being plagued by squealing brakes, this has been eliminated on mine by the fitting of new (modified) front pads. Apparently, those fitted from new were sub-standard. Again, done under warranty.

Enjoying the magazine. Keep up the good work!

Patrick Hedges

Thanks Patrick, it's good to know that not everyone has the same experiences at their BMW dealer. However, as you highlight, it does appear as though the parts themselves are perhaps the issue here. BMW obviously doesn't make everything itself, but maybe it should do!



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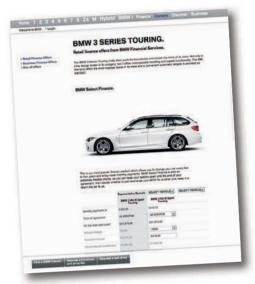
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BMW Buyer

Our monthly look at what's hot, or not, in the BMW marketplace

Words: Guy Baker



MW new car sales were up again this month, with 63,121 cars sold so far in 2015. That's up over five per cent on last year's figure at this point – beating the overall UK market's modest 2.4 per cent rise in sales. A small coup for BMW then, whose resulting market share of 6.14 per cent is ahead of rivals Mercedes (5.71 per cent) but still behind Audi – whose 2015 market share of 6.95 per cent places it close to becoming a mainstream, rather than a premium brand. BMW, too, must watch out for this if it continues to chase an expanded UK market share.

According to Rupert Pontin, head of valuations at Glass': "BMW benefited from the growth in the UK market and lead times extended for some of its model range. From a used car perspective BMW dealers had decent footfall through their used car operations and positive sales results."

This reflected well in the auction halls with BMW striving to be innovative in how it delivers its used wholesale activity to keep both franchised and independent dealers interested in the brand – with

the spec of individual models having a big impact on how desirable they are seen, according to Rupert. The top three bestselling model ranges at auction were once again 3 Series, 1 Series and 5 Series.

Efficiency is currently a watchword with BMW and July will see the introduction of new three-cylinder petrol engines for three- and five-door versions of the 118i. It's worth noting that — even at the other end of the spectrum — efficiency is still important, with the most powerful M6 due to sport a power and economy boost with M TwinPower Turbo technology.

Franchised dealerships are offering some attractive deals on 3 Series Tourings at the moment with the 318d M Sport Touring available on BMW Select Finance for just £309 a month over four years. Put down £5079 at 5.4 per cent APR and BMW will contribute £4655.39 towards your deposit. Outside the main dealer network there are 3 Series Touring deals to be had too, with online discounter www.broadspeed.com offering savings of up to £5375 on a new 318d M Sport Touring, and as much as £7520 off a new 330d M Sport Touring.

Top three £10,000 fast Estates

Just because you need to carry a heavy load, it doesn't mean you can't also carry a big stick. Combining performance and practicality is something BMW does brilliantly, and thanks to the wonders of depreciation as little as ten grand buys a decent example of these three beasts.



330d M Sport Touring (E91) 2005-2008

£10,000 is enough to put you behind the wheel of the extremely rapid E91 330d M Sport Touring, with 80k miles on the clock. Even in factory trim the 330d is hot-hatch quick, yet careful use of your right foot could see you achieve close to 40mpg on a long run.



335i M Sport Touring (E91) 2007-2010

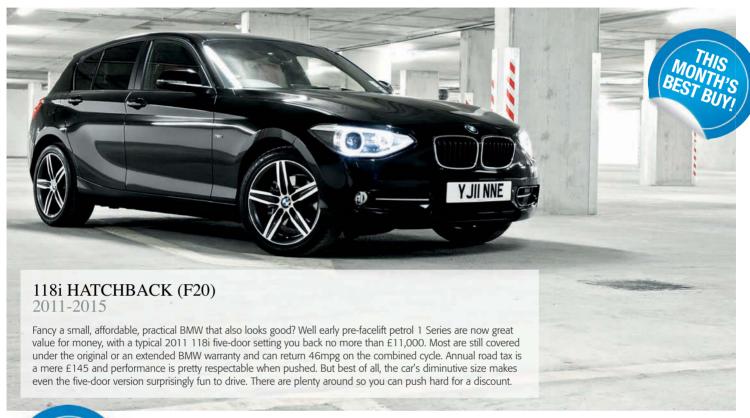
A rarer choice as a new car than a 330d, the E91 335i is a powerhouse of an estate, with 306hp, and 62mph beaten in just 5.7 seconds. Splash out on a remap and the performance reaches levels normally reserved for exotica. Ten grand bags a 90k-miler.



535d M Sport Touring (E61) 2007-2010

Even greater carrying capacity than the E91 3 Series, and greater acceleration than a 330d thanks to the hi-tech twin-turbo powerplant, with 428lb ft of torque. Despite that, the fuel economy can beat 40mpg, and £10,000 will get you a good 95k mile 2007 example.

Many thanks to John Warren Cars (www.independentbmw.co.uk) for its assistance with BMW Buyer





BMW Car's lowdown on the latest prices paid for average condition BMWs at auction. To find your nearest auction house check out: www.british-car-auctions.co.uk



And remember...

Always arrive early at car auctions, pick up the sales catalogue and examine the vehicles in the line-up before the bidding starts. In addition to the hammer price, you'll have to pay a small buyer's fee. You'll need to provide a deposit of at least £500 (in cash or by Maestro or Visa Delta debit card) but the balance of the purchase price and the buyer's fee can be paid via banker's draft, cash, cheque, telegraphic transfers, credit or debit card.

Prices paid last month for average condition BMWs at auction

Model	Trim/transmission	Year/registration	Mileage	Price
325Ti	SE Compact, manual	2002/02	119k	£1500
330Ci	Club Sport Coupé, auto	2002/52	95k	£2550
116i	SE 5 door, manual	2006/56	61k	£4500
330Ci	M Sport Coupé, manual	2004/04	66k	£4750
Z4	Sport, manual	2006/56	78k	£5100
325i	SE Coupé, manual	2006/56	79k	£5600
Х3	2.5i M Sport, auto	2004/54	55k	£5750
123d	M Sport 5 door, manual	2008/58	98k	£6600
X5 3.0d	M Sport, auto	2002/52	43k	£6650
320d	M Sport Saloon, manual	2011/11	106k	£7775
530d	M Sport Saloon, auto	2006/56	72k	£8000
325i	M Sport Convertible, auto	2009/09	20k	£14,300
Z4 35i	sDrive, DCT	2009/09	58k	£14,400
135i	M Sport Coupé, manual	2010/10	35k	£15,600
650i	SE Convertible, auto	2012/12	21k	£34,200

Forecourt find SIX APPEAL

335i M Sport Coupé (E92) 2007-2010

The original N54-powered 335i Coupé offered ample performance with 306hp on tap, plus a seamless 295lb ft of torque and a 5.5-second 0-62mph time. But if you added a remap you could be looking at a searing 375hp, with 400lb ft of torque.

Prices start at £11,000 but we spotted this silver 2008 example advertised for £10,495 in Northern Ireland – reduced from £11,995. With 89k miles, it's well spec'd: Xenon headlights, heated electric memory seats, Bluetooth phone prep, 19-inch alloys and rear parking sensors. We also reckon you could bag delivery to the mainland in the price.

Web: www.morgancars.net Tel: 028 4177 3635



FROM THE ARCHIVE...

Another selection of back issues showing what we were up to five, ten and 15 years ago



August 2010

You feature a unique one-off convertible on the cover one month, and an equally rare machine turns up for the next cover, too! The July issue featured the E34 M5 Convertible but we went one better in the August issue where we had an exclusive piece on BMW Classic's stillborn 850Ci soft-top. Thanks to its pillar-less construction it should have been a relatively simple project to engineer but when we spoke to the car's design team and project leader. Hanns-Peter Weisbarth, he reckoned that once the roof was removed the structure just wasn't robust enough: "We ended up with huge sills on either side with all

kinds of cross bracing but we could never achieve the body rigidity we wanted." It was heavy — over two tonnes — and as a result it was two seconds slower than the Coupé to 62mph and would only reach a 245km/h top speed (and needed a very long road to reach that figure!). After much money had been spent the project was quietly shelved.



August 2005

Ever since we'd been made aware of the existence of Hartge's wild 1 Series, the H1, we'd been itching to drive it. Hartge had long established itself as the tuning company that would go one step beyond with its conversions ever since it shoehorned the E34 M5's 3.6-litre S38 into an E30 and when we got the call that its latest Frankenstein's monster was ready we hot-footed it to its German HQ.

It might not have looked hugely different to a standard 1 Series once you'd looked past its unique front-end treatment, but the huge alloys only partially hiding a monster set of stoppers gave the game away that this was

powered by something out of the ordinany. Pop the bonnet and you were greeted to the sight of the E39 M5's S62 V8 which looked to all intents and purposes like a factory install! As you'd expect, performance was immense with Hartge quoting a 188mph top speed and a 0-62mph time of 4.5 seconds. "The H1 is a superunleaded-flavoured breath of fresh air," reckoned Dom Holtam in his write up, that "flies in the face of rational thinking, reeking of the kind of power-crazed motorlust that lurks in the depths of every car nut's soul".



August 2000

This issue is fondly remembered by the current editor as it was the first time he'd ever spent time behind the wheel of BMW's iconic M1.

These days the M1 is a rapidly appreciating collector's item, but back in 2000 they weren't nearly as valuable or revered. We borrowed this example from Munich Legends who had no qualms about letting us take it for a 600-mile round trip to the North York moors. And what a journey it was. Its left-hand drive layout and virtually non-existant rear-three quarter vision made motorway lane changes a fraught experience, but once we were on the moors it came into its own and was an amazing

experience to drive. The 24-valve straight-six was an absolute stunner and the car really seemed to flow through the moorland scenery with lovely direct steering and a supple ride quality that absorbed road imperfections like they weren't there. One of BMW's finest hours and it would seem like the classic car investors have really cottoned onto that fact. You'll need to dig very deep if you want to buy one today.

BMW IN ADVERTS

This month our ads feature the E30 325e, a BMW parts computer and low cost BMWs

1982: E30 325e



One from our American cousins here, as in Europe we never received the 325e. When the E30 initially went on sale with the 2.0- and 2.3-litre M20 engines in Europe these units were not offered in America (presumably as they wouldn't pass US emission tests). So in 1982 BMW started building the 325e, effectively the marriage of the E30 body with the E28 525e's low-rewing, high torque 2.7-litre engine which the advert claimed "responds exuberantly as you move through the gears."

It concluded: "The 325e merges six decades of BMW's innovative technologies, unstinting attention to infinitesimal detail and unceasing devotion to high performance."

1990: BMW parts computer



Not actually an item that was fitted to a BMW but rather BMW's swanky new computerised parts system that could check through a typical dealer's parts inventory of 3800 items for any given part number in just 3.6 seconds. Or which could check through the entire UK dealer network's stock of 57.000 times in a "matter of minutes". My, how computers have changed in the last 25 years. These days a Google search on your home PC for 'BMW parts' brings up 47 million results in 0.37 seconds! The parts system could also order bits from Germany which were guaranteed to arrive "within seven days". Looks like global logistics have also improved, but not quite as much as the computers...

1986: BMWs for less

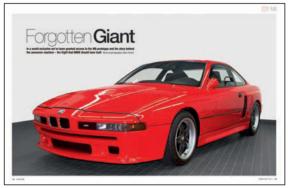


BMWs have always been seen as expensive cars but this UK advert was very keen to point out that you could save money when buying one: "Pay less for your next car. Buy a BMW." Using figures from Company Car magazine and Motor it demonstrated

that if you bought a £10k E30 320i rather than another similar car you would save £1000 over three years of ownership once depreciation was factored into the equation. "Lowering your costs without lowering your expectations," it concluded.

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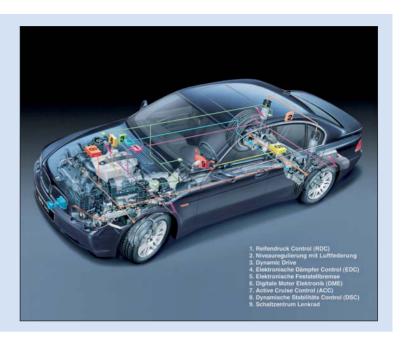
Battery management

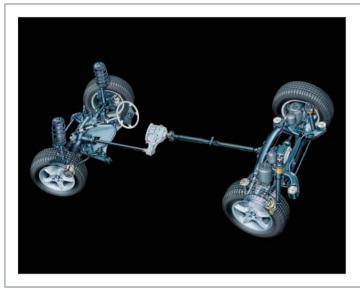
When the E65 arrived in 2001 it brought with it a new era of car battery technology that the 2003 E60 5 Series continued.

Unlike cars of old where any old battery would do and the alternator would try to charge a dying battery and the car would still function as normal, these cars have an intelligent battery system (IBS) that utilises a control module. This allows certain systems to shut down in the event of the battery weakening and, when the battery is fine, this module also tells the alternator when to charge and by how much — it's largely reliable and clever stuff.

However, it won't tolerate the kind of thing I do with older cars when the battery is on its last legs. On an E36, a flat battery just involves a jump start or giving it a bump (I live on a hill!) and the battery will last the rest of the day.

But when the battery on an E60 or any car with IBS starts to act this way, it won't tolerate you just chucking in another battery. I've heard of a 525d with a 90 amp battery fitted to replace the expired 110 amp unit. First, it must have the correct amp battery fitted - nothing else will do. Then it had to be coded and registered to the car with the correct DIS or INPA software and not just any old stuff from the internet on an old Dell laptop but proper software that works. Running a car like this (on the wrong battery that hasn't been registered to the car) is asking for trouble because stuff will shut down and misbehave. BMW batteries have the date of manufacture stamped into one of the terminals and if yours is more than eight or nine years old, I'd suggest it's time to think about fitting a new one before winter





X-Series diffs

Working for 18 months with a BMW parts specialist taught me a lot about what goes wrong on BMWs and what doesn't. Now that they're getting on a bit, E53 X5 diffs (particularly front ones) are going wrong and you would not be the first buyer of an old X5 to discover that the front prop has been removed to mask the noises of an ailing diff. The most common ones to go wrong are those of the most numerous version: the 3.73 ratio units on the 3.0 diesel. These are frightening money new (try £1250 plus VAT for size) and rare used – X5s might be old but unlike the rather less robust products of Solihull, they aren't piling up in scrapyards and so prices for good used diffs and transfer boxes is still high. Used diff? Make sure it's the right ratio as a 3.64 front diff won't last long on a car with a 3.91 rear.

The X3 is less robust in this department sadly. These really do need to have tyres that are somewhere close in terms of tread depth if it's not to wear out the transfer box or the front diff. And if you thought X5 used spares were scarce, well, think again because X3s – for whatever reason – very rarely appear in specialist breakers. Slow sales meant they were never that common in the early years and high values of the most popular 2.0d version means that anything that doesn't look like it was hit by a train will inevitably be repaired.

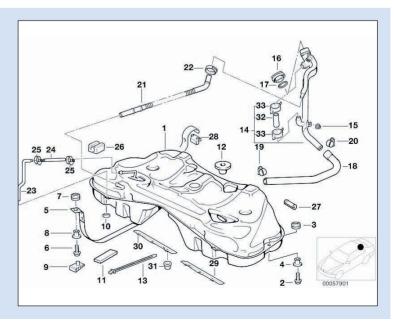
So what to do? If you're buying, make sure the four-wheel drive bit works as it should without any whines or clonks. And when you've bought one, spend a few quid changing the oil and don't ignore any signs of impending doom.

E38 fuel tank fix

Launched over 20 years ago now, the E38 7 Series was - and still is - a magnificent old bus. Despite some early niggles with CANbus it turned into a very solid and reliable car but why on earth did BMW fit a steel fuel tank? In 1994 the E36 and E34 both had plastic tanks, and whilst the metal tank on the previous E32 would last 20 years without a problem, the E38 tanks do not. A new tank is something obscene (like £1000 or the value of a clean, MOT'd and running 740i these days) so that idea is out straight away. Nobody does an aftermarket tank either. However, Tim Meek from the 7 Series Register (an absolute must if you run a 7) tried various solutions and came up with something that will repair a leaky tank (difficult as not much resists petrol). It's called Pratley Putty (£10 from Amazon) and is

meant to be used to repair swimming pools, so is resistant to the evils of chlorine. And it works; after over two years Tim's tank is still okay.

E38 tanks rust in two main areas: the neck where the filler hose joins and the seams where the top and bottom sections are welded together. The first bit leaks with a quarter of a tank whilst the seam will leak with more than half a tank of fuel. In an ideal world, you need to drain and remove the tank (propshaft and exhaust off, plus some bolts and swearing). Then you can fill the tank with water and go to work with a wire brush or a grinder, cleaning the seams back to metal and smoothing the putty into the seams before letting it harden and painting it with Hammerite. It's a lot of work, but it should save you £1000.



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E39 M5



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Heater resistor

I had a 1999 E46 318i Touring in with an intermittently non-working heater fan. I'd changed the resistor and the 'will it/won't it' fan action returned not long after. So, I removed the bulkhead covers and got into the fan itself. Upon flicking the blades around it sprung into life; a very small amount of WD40 in the bearings and some contact cleaner in the motor seemed to resolve that issue. You have to be careful, though, as too much WD in the motor can catch fire. But the problem came back again a month later. Determined to fix it, I removed the bulkhead covers again and spun the motor by hand... nothing. Out with the test light: no power at the motor either. The fuse was okay, as was the fusebox. However, I then idly tapped the spikes on the resistor with a long screwdriver and the fan burst into life – so it was a resistor problem! Removing the relevant dash trim revealed the resistor and the five-pin connector plug. With the fan still going, I carefully waggled each wire and on one of them, the fan stopped. Removing the plug revealed a bit of green corrosion on the pins. These were cleaned up, tweaked to make them fit tighter and, so far, the fan's been working like a charm ever since. Moral of the story? Don't automatically buy a new resistor if your fan has stopped. And when you fit a new one, clean up the pins on the multi-plug. Oh, and the same resistor is used on the E36.

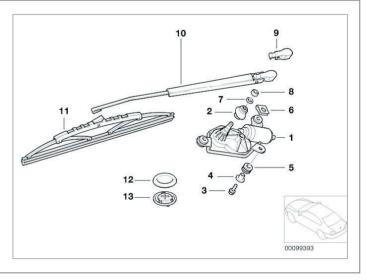
E46 Compact wiper motors

Still on E46s, I'm reminded of a common weakness with the E46 Compact and, to a lesser degree, the previous E36 version: the rear wiper motor.

When the E36 Compact arrived in 1994 it had a neat setup where washer fluid would be pumped through the centre of the rear wiper spindle and through a small bore rubber hose to a washer jet clipped to the wiper arm. This works fine but eventually water will find a way to leak into the motor and cause havoc. The E36 version was fairly prone to this but the E46 Compact is far worse and a new motor is around £200 with VAT. Good used one are in the region of £35-£50 and the E36 ones aren't a lot less.

So if your motor is kaput, there's not a

lot you can do but if it's still working or you've just bought a working used replacement there is stuff you can and should do now to keep it going. Removing the motor is easy enough: take the rear tailgate trim panel off, use a 13mm nut for the wiper arm and three 10mm bolts plus the electrical connector plug to remove the motor (no, the E36 and E46 motors are not the same and won't interchange despite looking very similar). Remove the rear cover (a few small torn screws) and chances are it'll be pretty rusty in there. Plenty of brake cleaner will get the gunk out, after which you should liberally re-grease the worm drive and gear wheel - don't get too much near the motor though!





M62 high coolant temperatures

When the M62 3.5 and 4.4 V8 engines replaced the 3.0- and 4.0-litre V8s in 1996 one of the improvements was a higher coolant temperature (105°C) on light throttle to reduce emissions and meet current emissions regulations. The trouble is, to keep water from boiling you have to put it under greater pressure. This was okay when the cars were new, but now they're old, they don't like mega high coolant pressure and temperatures and they are well-known for bursting hoses, radiators and header tanks. Higher loads see the ECU open the 'stat wider to reduce temperatures.

There is, however, a fix for this. On cars without Vanos, such as the pre-September 1998

5 and 7 Series and all 840Ci cars (those with jubilee clips on the hoses basically) you can just swap the 95° thermostat for the 85° one from the E34 and E32 V8 cars. You lose ten degrees of heat from the system and give the poor cooling system a respite. It's possible you may need the E34/E32 alloy stat housing, though, but they're not that expensive.

The Vanos engines, through, have the later clip on type hoses so you can't do that. You can however fit the thermostat from the E38 and E65 740d cars. This is a similar looking unit that opens at a lower temperature (88 as opposed to 105°) and is a popular mod in the USA it seems. Has anyone in the UK tried it?



BMW CONCEPTS: The cars they could have made

Concept Coupé Mille Miglia

With the underpinnings shared from an M car, a lightweight body and nostalgic styling, this concept car celebrated the a past master in style...









ometimes, it's nice to see concept cars built just for a bit of fun. The Concept Coupé Mille Miglia from 2006 wasn't ever intended to become BMW's next budding sports car, or to exhibit the company's latest technical innovations. Instead, it was simply built to commemorate a great moment in BMW's past; the 328 Coupé's landslide victory on the 1940 900-kilometre Mille Miglia race, which it won by more than a 15-minute margin.

To celebrate, BMW created this nostalgic 328 Coupé homage, as a modern take on an old style. BMW stated; 'With its unique concept study, the developers and designers in the BMW Group are showing how traditional values, modern expertise and visions can be unified into a fascinating vehicle.'

It certainly was fascinating. The concept was largely based upon Z4 M Coupé mechanicals but with bigger

overall dimensions, being some 23cm longer, 14cm wider and 4cm lower. Although that made it fairly big, it was actually very light, as despite the car looking like it was made from aluminium, just as the original 328 was, the entire body was actually made out of lightweight carbon-fibre reinforced plastic (CFRP) and then painted a fine shade of silver.

The material might be different but styling closely followed the original 328's, from the large round headlights, huge vertical kidney grilles, long bonnet and sweeping front wheel housings through to the low windscreen, streamlined roof line and angled rear wings. The rear of the roof section featured an asymmetrical design, complete with a large, narrow LED taillight that ran across the whole back section. To match the rear light, the headlight panels also featured a series of LEDs. There were no doors and access to the cabin area involved lifting the entire roof

section upwards and back. Once in the open position it revealed a somewhat sparse interior, which was dominated by the rollcage.

The huge arches were filled with equally huge specially developed 20-inch wheels and were fitted with 245/40 20 tyres. These were actually a little skinny in reality, as the Z4 M's complete engine and running gear was also fitted. That meant a 3.2-litre straight-six engine producing 343hp, connected to a six-speed manual gearbox. The concept car also featured a revised intake and exhaust system for an improved soundtrack.

As mentioned, BMW never had an intention of releasing the Mille Miglia, although the CFRP bodyshell suggested it may well have gained some useful experience working with the exotic material. Regardless, it's a pretty concept car and no doubt a fitting tribute to BMW's 1940 success



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